

=> d his nofile

(FILE 'HOME' ENTERED AT 08:12:19 ON 24 JAN 2007)

FILE 'HCAPLUS' ENTERED AT 08:13:24 ON 24 JAN 2007

L1 1 SEA ABB=ON PLU=ON US20060121709/PN

FILE 'REGISTRY' ENTERED AT 08:13:44 ON 24 JAN 2007

L2 16 SEA ABB=ON PLU=ON (123-54-6/BI OR 14630-40-1/BI OR
14689-25-9/BI OR 25583-20-4/BI OR 26213-42-3/BI OR
29965-97-7/BI OR 675200-66-5/BI OR 675200-67-6/BI OR
675200-68-7/BI OR 675200-69-8/BI OR 675200-70-1/BI OR
675200-71-2/BI OR 675200-72-3/BI OR 7440-21-3/BI OR
7440-22-4/BI OR 7440-50-8/BI)
L3 STR
L4 STR L3
L5 12 SEA SSS SAM L4
L6 237 SEA SSS FUL L4
L7 6 SEA ABB=ON PLU=ON L2 AND L6
SAV L6 LAO569/A

FILE 'HCAPLUS' ENTERED AT 09:23:59 ON 24 JAN 2007

L8 27 SEA ABB=ON PLU=ON L7

FILE 'REGISTRY' ENTERED AT 09:24:47 ON 24 JAN 2007

L9 STR L4
L10 12 SEA SUB=L6 SSS SAM L9
L11 153 SEA SUB=L6 SSS FUL L9
L12 84 SEA ABB=ON PLU=ON L6 NOT L11
L13 4 SEA ABB=ON PLU=ON L7 NOT L11

FILE 'HCAPLUS' ENTERED AT 09:32:29 ON 24 JAN 2007

L14 1 SEA ABB=ON PLU=ON L13
L15 29 SEA ABB=ON PLU=ON L12

FILE 'REGISTRY' ENTERED AT 09:33:50 ON 24 JAN 2007

L16 0 SEA ABB=ON PLU=ON L12 AND MEDLINE/LC
L17 0 SEA ABB=ON PLU=ON L12 AND BIOSIS/LC
L18 0 SEA ABB=ON PLU=ON L12 AND EMBASE/LC
L19 0 SEA ABB=ON PLU=ON L12 AND DRUGU/LC

FILE 'EMBASE, BIOSIS, MEDLINE, DRUGU, HCAPLUS, JICST-EPLUS, JAPIO,
WPIX, SCISEARCH, LIFESCI' ENTERED AT 09:37:23 ON 24 JAN 2007

L20 170 SEA ABB=ON PLU=ON DOPPELT, P?/AU
L21 15 SEA ABB=ON PLU=ON L20 AND GAS(A) PHASE?
L22 7 SEA ABB=ON PLU=ON L21 AND METALLIC?

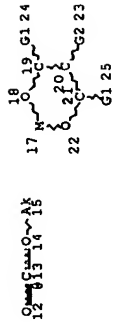
FILE 'HCAPLUS' ENTERED AT 09:47:47 ON 24 JAN 2007

L23 28 SEA ABB=ON PLU=ON L15 NOT L1

FILE 'HCAPLUS, WPIX, SCISEARCH' ENTERED AT 09:50:41 ON 24 JAN 2007

L24 4 DUP REM L1 L22 (4 DUPLICATES REMOVED)
ANSWERS '1-4' FROM FILE HCAPLUS

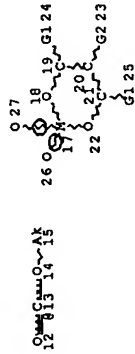
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 L1 1 SEA FILE=HCAPIUS ABB=ON PLU=ON US20060121709/PN
 L4 STR



VAR G1=AK/10
 VAR G2=10/NO2/CHO/13
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
 L6 237 SEA FILE=REGISTRY SSS FUL L4
 L9 STR



VAR G1=AK/10
 VAR G2=10/NO2/CHO/13
 NODE ATTRIBUTES:
 NSPEC IS R AT 26
 NSPEC IS R AT 27
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE
 L11 153 SEA FILE=REGISTRY SUB=L6 SSS FUL L9
 L12 84 SEA FILE=REGISTRY ABB=ON PLU=ON L6 NOT L11
 L15 29 SEA FILE=HCAPIUS ABB=ON PLU=ON L12
 L23 28 SEA FILE=HCAPIUS ABB=ON PLU=ON L15 NOT L1

=> d 123 1-28 ibib ed ab hitstr hitind

L23 ANSWER 1 OF 28 HCAPIUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:962681 HCAPIUS Full-text
 DOCUMENT NUMBER: 145:505039

TITLE: Interplay of Structure and Reactivity in a Most

Unusual Furan Diels-Alder Reaction
 Griffith, Gerry A.; Hillier, Ian H.; Moralee,
 Andrew C.; Percy, Jonathan M.; Roig, Ricard;
 Vincent, Mark A.

CORPORATE SOURCE:

Department of Chemistry, University of Leicester,
 Leicester, LE1 7RH, UK
 Journal of the American Chemical Society (2006),
 128(40), 13130-13141

SOURCE:

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 19 Sep 2006

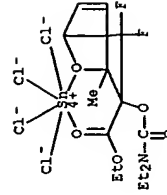
AB Difluorinated alkene Et 3,3-difluoro-2-(N,N-diethylcarbamoyloxy)-2-propenoate reacts rapidly and in high yield with furan and a range of substituted furans in the presence of a tin(IV) catalyst. Nonfluorinated congener 2-(N,N-diethylcarbamoyloxy)-2-propenoate fails to react at all under the same conditions. These reactions were explored using d. functional theory (DFT) calcs. They reveal a highly polar transition state, which is stabilized by the Lewis acid catalyst SnCl4 and by polar solvents. In the presence of both catalyst and solvent, a two-step reaction is predicted, corresponding to the stepwise formation of the two new carbon-carbon bonds via transition states which have similar energies in all cases. Exptl. observations of the lack of reaction of the nonfluorinated dienophile, the stereochem. outcomes, and the rate acceleration accompanying furan methylation are all well predicted by calcs. The calculated free energy barriers generally correlate well with measured reaction rates, supporting a reaction mechanism in which zwitterionic character is developed strongly. An in situ ring opening reaction of exo-cycloadduct Et exo-2-(N,N-diethylcarbamoyloxy)-3,3-difluoro-7-oxabicyclo[2.2.1]hept-5-enyl-2-endo-carboxylate, which gave cyclic carbonate Et 4,4-difluoro-5-hydroxy-2-oxo-5,7a-dihydro-4H-benzo[1,3]dioxole-3a-carboxylate by a Curtin-Hammett mechanism, also was examined. Substantial steric opposition to Lewis acid binding prevents carbonate formation from 2-substituted furans.

IT 914986-22-4 914986-28-0

(mechanistic reaction intermediate; interplay of structure and reactivity in unusual furan Diels-Alder reaction)

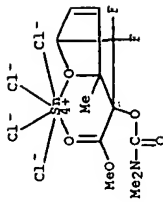
RN 914986-22-4 HCAPIUS

CN INDEX NAME NOT YET ASSIGNED



RN 914986-28-0 HCAPIUS

CN INDEX NAME NOT YET ASSIGNED



CC 22-3 (Physical Organic Chemistry)
 IT 914986-19-9 914986-20-2 914986-21-3 914986-22-4
 914986-23-5 914986-25-7 914986-26-8 914986-27-9
 914986-28-0 914986-29-1 914986-30-4 914986-37-1
 914986-38-2 914986-39-3 914986-40-6 914986-41-7
 (mechanistic reaction intermediate; interplay of structure and reactivity in unusual furan Diels-Alder reaction)

REFERENCE COUNT: 118 THERE ARE 118 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:918264 HCAPLUS Full-text
 DOCUMENT NUMBER: 145:324594
 TITLE: Organic electroluminescent device, display and illuminating device
 INVENTOR(S): Sugita, Shuichi; Kita, Hiroshi; Taka, Hideo
 PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan
 SOURCE: PCT Int. Appl., 62pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006092943	A1	20060908	WO 2006-JP302327	20060210
W: AE, AG, AL, AM, AT, AU, AZ, BA, BE, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TZ, UA, UG, US, UZ, VN, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
JP 2006279007	A	20061012	JP 2005-169228	20050609
PRIORITY APPLN. INFO.: JP 2005-57051 A 20050302				

3

ED Entered STN: 08 Sep 2006

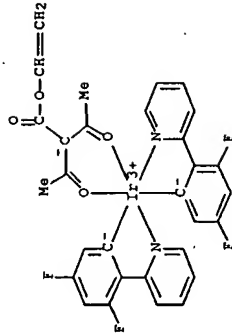
AB Disclosed is an organic electroluminescent device of multilayer structure which emits light at good luminous efficiency while having only a few dark spots and long life. Also disclosed are a display and an illuminating device each using such an organic electroluminescent device. Specifically disclosed is an organic electroluminescent device comprising a cathode and an anode arranged on a substrate, and a plurality of organic layers arranged between the cathode and the anode. This organic electroluminescent device is characterized in that at least one of the organic layers is a first organic layer which contains an organic mol. having not more than 10 repeating units and obtained by applying and polymerizing a compound having at least one polymerizable group.

IT 909119-87-5

(organic electroluminescent device, display and illuminating device)

RN 909119-87-5 HCAPLUS

CN Iridium, bis[3,5-difluoro-2-(2-pyridinyl- π N)phenyl- π C]ethenyl 2-(acetyl- π O)-3-(oxo- π O)butanoato]-
 (9CI) (CA INDEX NAME)



OC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 74

IT 376367-93-0 693794-98-8 800395-01-1 909119-87-5

(organic electroluminescent device, display and illuminating device)
 REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:733092 HCAPLUS Full-text
 DOCUMENT NUMBER: 145:198433

TITLE: Organic electroluminescent material for organic electroluminescent device, display and lighting apparatus

INVENTOR(S): Sekine, Noboru; Oshiyama, Tomohiro; Nishizeki, Masato

PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 77 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

4

10/529,569 Page 5 of 64

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006193546	A	20060727	JP 2005-3563	20050111
PRIORITY APPLN. INFO.:			JP 2005-3563	20050111

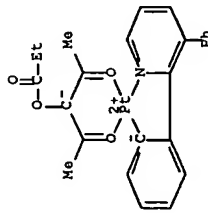
ED Entered STN: 27 Jul 2006
 AB The invention relates to an organic electroluminescent material for an organic electroluminescent device, display and a lighting apparatus, comprising a metal complex represented by I [M = metal atom; Z11 and Z12 = O, N, and S; R11-13 = substituted group; n1 = integer 1-3].

IT 902769-64-6 902769-69-1

(organic electroluminescent material for organic electroluminescent device, display and lighting apparatus)

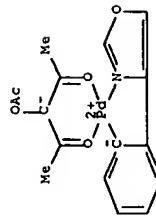
RN 902769-64-6 HCAPJUS

CN Platinum, [3-(1-oxopropoxy)-2,4-pentanedionato- κ O, κ O'] [2-(3-phenyl-2-pyridinyl- κ N)phenyl- κ C] - (9CI) (CA INDEX NAME)



RN 902769-69-1 HCAPJUS

CN Palladium, [3-(acetyl-oxy)-2,4-pentanedionato- κ O, κ O'] [2-(4-oxazoly- κ N3)phenyl- κ C] - (9CI) (CA INDEX NAME)



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 902769-60-2 902769-61-3 902769-62-4 902769-63-5

902769-64-6 902769-65-7 902769-66-8 902769-67-9

902769-68-0 902769-69-1 902769-70-4 902769-71-5

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(organic electroluminescent material for organic electroluminescent device, display and lighting apparatus)

L23 ANSWER 4 OF 28 HCAPJUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:989493 HCAPJUS Full-text

DOCUMENT NUMBER: 140:226183

TITLE: Synthesis and liquid crystal behaviors of 2,4-dioxo-3-pentyl 4-decyloxyoctanoate rhodium(I) complexes

AUTHOR(S): Han, Jie; Zhang, Liang-fu; Wan, Wen

CORPORATE SOURCE: Chengdu Institute of Organic Chemistry, Chinese Academy of Sciences, Sichuan, 610041, Peop. Rep. China

SOURCE: Chinese Journal of Chemistry (2003), 21(11), 1521-1524

PUBLISHER: Science Press

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 19 Dec 2003

AB The title complexes were synthesized by the reaction of [RhCl(CO)2]2 or [RhCl(COD)]2 (COD = 1,5-cyclooctadiene) with the organic ligand 2,4-dioxo-3-pentyl 4-decyloxyoctanoate. The complex based on dicarbonylrhodium(I) shows a nematic phase, while the complex containing Rh(I) bound to a COD ligand is a nonmesogen. The relation between mol. structures and liquid crystal behavior also is discussed by computer-aided mol. modeling.

IT 664362-37-2P

(preparation and liquid crystal properties of)

RN 664362-37-2 HCAPJUS

CN Rhodium, [1-(acetyl- κ O)-2-(oxo- κ O)propyl (2E)-3-[4-(decyloxy)phenyl]-2-propenoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)

Me- (CH₂)₉-O-C₆H₄-CH=CH-C(=O)-O-

Me

Me

Me

Me

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*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CC 75-11 (Crystallography and Liquid Crystals)

Section cross-reference(s): 29, 78

IT 664362-37-2P

(preparation and liquid crystal properties of)

IT 664362-39-4P

(preparation and thermal behavior of)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR

6

THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

123 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:326235 HCAPLUS Full-text
DOCUMENT NUMBER: 139:109034

TITLE: Synthesis and mesomorphic properties of
γ-substituted β-diketones and their
dicarbonylrhodium(I) complexes

AUTHOR(S): Han, Jie; Zhang, Liang Fu; Wan, Wen
CORPORATE SOURCE: Chengdu Institute of Organic Chemistry, Chinese
Academy of Sciences, Chengdu, 610041, Peop. Rep.
China

SOURCE: Journal of Organometallic Chemistry (2003),
672(1-2), 86-93

PUBLISHER: CODEN: JORCAI; ISSN: 0022-328X
Elsevier Science B.V.

DOCUMENT TYPE: Journal
LANGUAGE: English

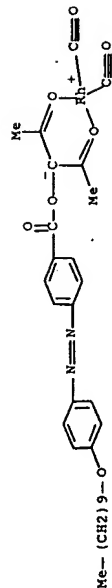
ED Entered STN: 29 Apr 2003
AB Five series of 3-(ClO₂IO-Ph-X-Ph-Y-) substituted pentane-2,4-diones and their
dicarbonylrhodium(I) complexes, namely, series 1: X = -CH:CHCOO- and Y = -COO-,
series 2: X = -CH:CHCOO- and Y = -CH:CHCOO-, series 3: X = -COO- and Y = -
CH:CHCOO-, series 4: X = -CH₂O- and Y = -COO-, series 5: X = -N:N- and Y = -COO-,
were synthesized, their mesogenic properties were studied using a Nikon
polarizing microscope and DSC. It is found the β-diketones la-3a, 5a and the
complexes lb-3b exhibit liquid crystal behaviors. The effect of the bridging
groups of X and Y on the mesogenic properties of the ligands and the complexes
was explored.

IT 561013-39-6P

(preparation and phase transition temperature of)

RN 561013-39-6 HCAPLUS

CN Rhodium, [1-(acetyl-κO)-2-(oxo-κO)propyl
4-[(1E)-3-[(4-(decyloxy)phenyl)azo]benzoato]dicarbonyl-, (SP-4-2)- (9CI)
(CA INDEX NAME)



IT 220218-46-2P 561013-36-3P 561013-37-4P
561013-38-5P

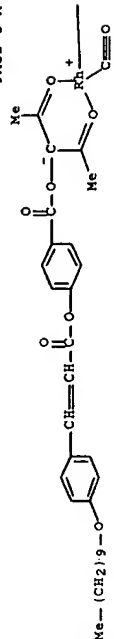
(preparation, liquid crystal properties and UV-Vis spectral crystallog.
data and atomic coordinates are given. of)

RN 220218-46-2 HCAPLUS

CN Rhodium, [1-(acetyl-κO)-2-(oxo-κO)propyl
4-[(1E)-3-[(4-(decyloxy)phenyl)-1-oxo-2-propenyl]oxy]benzoato]dicarbon
yl-, (SP-4-2)- (9CI) (CA INDEX NAME)

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PAGE 1-A

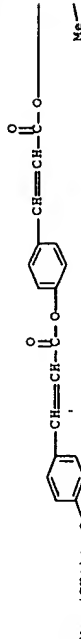


PAGE 1-B

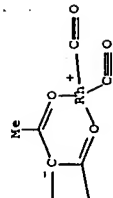


RN 561013-36-3 HCAPLUS
CN Rhodium, [4-[(1E)-3-[(1-(acetyl-κO)-2-(oxo-κO)propoxy)-3-
oxo-1-propenyl]phenyl (2E)-3-[(4-(decyloxy)phenyl)-2-
propenoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)

PAGE 1-A



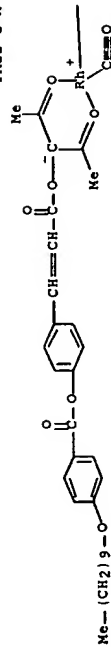
PAGE 1-B



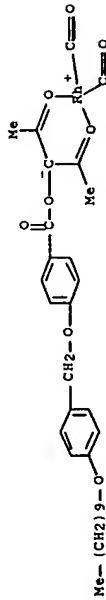
RN 561013-37-4 HCAPLUS
CN Rhodium, [4-[(1E)-3-[(1-(acetyl-κO)-2-(oxo-κO)propoxy)-3-
oxo-1-propenyl]phenyl 4-(decyloxy)benzoato]dicarbonyl-, (SP-4-2)-
(9CI) (CA INDEX NAME)

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PAGE 1-A



RN 561013-38-5 HCAPLUS
 CN Rhodium, [1-(acetyl-kO)-2-(oxo-kO)propyl
 4-[[4-(decyloxy)phenylmethoxy]benzoato]dicarbonyl-, (SP-4-2)- (9CI)
 (CA INDEX NAME)



CC 75-11 (Crystallography and Liquid Crystals)
 IT Section cross-reference(s): 78
 IT 561013-39-6P
 IT 220218-35-9P 220218-46-2P 561013-32-9P 561013-33-0P
 561013-34-1P 561013-35-2P 561013-36-3P
 561013-37-4P 561013-38-5P
 (preparation, liquid crystal properties and UV-Vis spectral crystallog.
 data and atomic coordinates are given. of)
 REFERENCE COUNT: 23
 THERE ARE 23 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L23 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:80887 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:291249
 TITLE: Redox-active metal-containing nucleotides:
 Synthesis, tunability, and enzymatic incorporation
 into DNA
 AUTHOR(S): Weizman, Haim; Tor, Yitzhak
 CORPORATE SOURCE: Department of Chemistry and Biochemistry,

SOURCE: University of California, San Diego, La Jolla, CA,
 92093-0358, USA
 Journal of the American Chemical Society (2002),
 124(8), 1568-1569
 CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

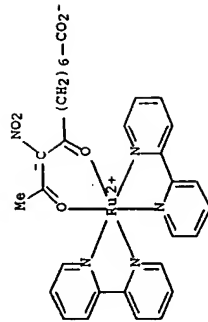
ED Entered STN: 31 Jan 2002
 AB Novel redox-active DNA labeling tags with tunable electrochem. potentials are
 modularly synthesized using (a) bis-substituted Ru2+ or Os2+ precursors
 (R2bpy)2ML2, (b) substituted 2,4-pentanediones or hydroxamic acids bearing a
 functionalized linker, and (c) modified nucleotides. DNA polymerase
 efficiently incorporates the metal-containing nucleotide triphosphate into DNA
 oligonucleotides.

IT 406947-60-2P

(redox-active metal-containing nucleotides and synthesis, tunability,
 and enzymic incorporation into DNA)

RN 406947-60-2 HCAPLUS

CN Ruthenium, bis(2,2'-bipyridine-kN1,kN1'')-[9-nitro-8,10-
 di(oxo-kO)undecanoato(2-)]-, (OC-6-33)- (9CI) (CA INDEX NAME)



CC 9-14 (Biochemical Methods)
 IT 406947-52-2P 406947-55-5P 406947-57-7P 406947-60-2P
 406947-63-5P 406947-65-7P 406947-66-8P 406947-67-9P
 406947-68-0P 406947-70-4P
 (redox-active metal-containing nucleotides and synthesis, tunability,
 and enzymic incorporation into DNA)
 REFERENCE COUNT: 23
 THERE ARE 23 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L23 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:160846 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:28213
 TITLE: Synthesis and structural characterization of
 tricarboxymethoxymethane complexes of copper(II)
 and barium(II) and evaluation of their suitability
 for MOCVD applications
 AUTHOR(S): Baxter, David V.; Caulton, Kenneth G.; Chiang,
 Wen-Chung; Chisholm, Malcolm H.; DiStasi, Vincent
 F.; Dutremez, Sylvain G.; Martin, James D.;
 Streib, William E.

CORPORATE SOURCE: Department of Physics, Department of Chemistry and

Molecular Structure Center, Indiana University,

Bloomington, IN, 47405-7102, USA

New Journal of Chemistry (2001), 25 (3), 400-407

CODEN: NJCHES; ISSN: 1144-0546

SOURCE: Royal Society of Chemistry

PUBLISHER: Journal

DOCUMENT TYPE: English

LANGUAGE: CASREACT 135:28213

OTHER SOURCE(S):

ED Entered STN: 07 Mar 2001

AB The reaction between Cu(OCH₃)₂ and HL [L = -C(OOCH₃)₃] in THF gives a mixtureof two products, CuL(OCH₃) and CuL₂(THF)₂. CuL(OCH₃) was characterized by

elemental anal., IR spectroscopy and thermal decomposition studies, and its

insol. in THF, at room temperature, suggests that it may be polymeric. The

solid state structure of CuL₂(THF)₂ was established via a single-crystal x-ray

diffraction anal. This complex has a tetragonally distorted trans-

disubstituted octahedral structure with L binding like a conventional

bidentate β-diketonate ligand; the central CO₂CH₃ group of each L is notcoordinated. CuL₂(THF)₂ readily loses the two THF mol^s, bound to the Cu(II)center upon drying in a stream of dinitrogen to produce THF-free CuL₂.Alternatively, THF-free CuL₂ can be prepared by the reaction of CuL(OCH₃) withHL in refluxing toluene. X-ray crystallog. shows that CuL₂ is a polymericsolid composed of a planar Cu(η²-L)₂ repeat unit in which the central CO₂CH₃

group of each L binds weakly to the Cu(II) center of a neighboring unit along

a "stepped" (displaced) stack of CuO₄ units. The reaction between elementalbarium and HL in THF requires activation with NH₃(g). The product is a whitesolid of empirical formula BaL₂·0.36THF. It was characterized by elementalanal., IR NMR, ¹³C(1H) NMR, and IR spectroscopies, and thermal decomposition

studies. It is insol. in common laboratory solvents but soluble in strong

Lewis bases such as pyridine, DMSO, and hexamethylphosphoramide (HMPA). The

product resulting from the depolymer. of BaL₂·0.36THF with HMPA was

characterized via a single-crystal x-ray diffraction anal. It is a dimer of

empirical formula Ba₂L₄(HMPA)₄. It consists of two BaL₂(HMPA)₂ fragmentslinked together, in a centrosym. fashion, by two μ₂,η³-[C(OOCH₃)₃] ligands;this is made possible using the donor power of the pendant C(OOCH₃)₃ group notused in CuL₂(THF)₂. The remaining two -C(OOCH₃)₃ ligands are also bidentatebut are nonbridging, and the four HMPA mol^s. are bonded through oxygen,resulting in a coordination number of seven for each barium. CuL₂ is volatile

and sublimes upon heating the amorphous material obtained from spontaneous

desolvation of CuL₂(THF)₂, or polymeric CuL₂, or CuL(OCH₃) under high vacuum.

The barium complexes are not volatile. Metallic copper was obtained upon

heating the Cu(II) complexes to 1000° in a stream of argon, and formation of

Cu₂O results when these complexes are decomposed in the presence of oxygen.Thermal decomposition of BaL₂·0.36THF and Ba₂L₄(HMPA)₄ was carried out underargon and O₂-Ar atmospheres; residues containing varying amts. of BaO, BaO₂and BaCO₃ were obtained depending on the exptl. conditions.

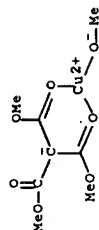
342805-80-5P

IT (polymeric; preparation, thermal decomposition and reaction with tri-Me

methanetricarboxylate)

RN 342805-80-5 HCAPLUS

CN Copper, methoxy(trimethyl) methanetricarboxylato-

KO⁺,XO⁺)- (9CI) (CA INDEX NAME)

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 342805-80-5P

(polymeric; preparation, thermal decomposition and reaction with tri-Me methanetricarboxylate)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:94971 HCAPLUS Full-text

DOCUMENT NUMBER: 135:15524

TITLE: Induction of aerobic peroxidation of liposomal membranes by bis(cyclopentadienyl)-vanadium(IV) (acetylacetonate) complexes

AUTHOR(S): Kotchevar, A. T.; Ghosh, P.; DuMez, D. D.; Uckun, F. M.

CORPORATE SOURCE: Department of Chemistry, Parker Hughes Institute,

St. Paul, MN, 55113, USA

SOURCE: Journal of Inorganic Biochemistry (2001), 83(2-3),

151-160

CODEN: JIBIDJ; ISSN: 0162-0134

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:15524

ED Entered STN: 08 Feb 2001

AB The ability of bis(cyclopentadienyl)-vanadium(IV) (acetylacetonate) (1) to initiate oxygen-dependent lipid peroxidn. in zwitterionic liposomal membranes was examined in detail. A comparison of the rates of the lipid peroxidn. reaction demonstrated that the electron-donating capacity of the substituted acetylacetonate ligand significantly influences the rate of reaction. An increase in the rate of lipid peroxidn. correlated to a decrease in the VIV/VV redox potential. Notably, lipid peroxidn. initiated with 1 proceeded without the formation of radicals as shown by EPR spin trap techniques. In contrast, lipid peroxidn. initiated with non-chelated bis(cyclopentadienyl)-vanadium(IV) dichloride (6) was associated with the production of radicals under similar exptl. conditions. There also was a significant pH effect on the extent of peroxidn. initiated with 6 vs. the reaction initiated with 1. The mode of action of 1 likely involves the activation of mol. oxygen by the vanadium(IV) center followed by allylic hydrogen atom abstraction from the lipid.

IT 342835-47-6P

(preparation of and induction of aerobic peroxidn. of liposomal membranes by bis(cyclopentadienyl)-vanadium(IV) (acetylacetonate) complexes)

RN 342835-47-6 HCAPLUS

CN Vanadium(1+), bis(η⁵-2,4-cyclopentadien-1-yl)(3-nitro-2,4-

pentanedionato-κO,κO')-, salt with

trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

296778-85-3

synthesis and structure of metallocene compds. and their interactions with lipid membranes)

L23 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:334638 HCAPLUS Full-text
DOCUMENT NUMBER: 131:82090
TITLE: Rhodium(I) and Iridium(I) Complexes Containing

β-Diketonate or Pyrazole Ligands. Liquid
Crystal and Nonlinear Optical Properties
Barbera, Joaquin; Elduque, Anabel; Gimenez,
Raquel; Lahoz, Fernando J.; Lopez, Jose A.; Oro,
Luis A.; Serrano, Jose Luis; Villacampa, Belen;
Villalba, Julio

DEPARTAMENTO DE QUIMICA ORGANICA DEPARTAMENTO DE
QUIMICA INORGANICA Y DEPARTAMENTO DE FISICA DE
LA MATERIA CONDENSADA INSTITUTO DE CIENCIA DE
MATERIALES DE ARAGON, UNIVERSIDAD DE
ZARAGOZA-CONSEJO SUPERIOR DE INVESTIGACIONES
CIENTIFICAS, ZARAGOZA, 50009, Spain

INORGANIC CHEMISTRY (1999), 38(13), 3085-3092
CODEN: INOCHJ; ISSN: 0020-1669
AMERICAN CHEMICAL SOCIETY

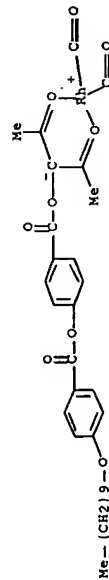
PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:

ED Entered STN: 02 Jun 1999

AB Square-planar Rh or Ir n-decyloxy-β-diketonate complexes [M(β-diketonate)(CO)2] (M = Rh (1-3) or Ir (4-6)) and pyrazole-Rh derivs. [RhCl(CO)2(pyrazole)] (7-9) were prepared and their liquid-crystalline properties studied. Compds. 1 and 4 show monotropic smectic A phases, and complex 7 shows a monotropic nematic phase. The behavior of the m.ps. seems to be related to the X group directly bonded at the 3-position of the β-diketonate ligand (1-6) or at the 4-position of the pyrazole ring (7-9). When X = OOC higher m.ps. were obtained. Two different polymorphs, red (M = Rh) or blue (M = Ir) and yellow (M = Rh, Ir), were obtained for complexes 1, 4, and 6. The yellow form for compound 4 (C31H35IrO9·MeOH, monoclinic system, space group P21/c with a 26.991(6), b 4.0093(8), c 31.169(6) Å, β 104.930(13)°, and Z = 4) also was characterized by an x-ray single-crystal diffraction experiment to explain the influence of the packing arrangement in the formation of different polymorphs. Adnl., measurements of the 1st-order optical hyperpolarizability (β) of the Rh compds. and some of the precursor ligands using the EFISH technique also were performed.

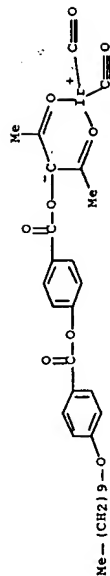
IT 207297-58-3P 228703-63-7P
(preparation, nonlinear optics, thermochromism, and mesomorphism in iridium and rhodium decyloxy-type diketone and pyrazolate complexes)

RN 207297-58-3 HCAPLUS
CN Rhodium, [4-[(1-(acetyl-κO)-2-(oxo-κO)propoxy)carbonyl]phenyl 4-(decyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



15

RN 228703-63-7 HCAPLUS
CN Iridium, [4-[(1-(acetyl-κO)-2-(oxo-κO)propoxy)carbonyl]phenyl 4-(decyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



CC 78-7 (Inorganic Chemicals and Reactions)

IT 207297-58-3P 228703-58-0P 228703-61-5P

228703-63-7P 228703-64-8P 228703-65-9P

228703-67-1P 228703-66-0P
(preparation, nonlinear optics, thermochromism, and mesomorphism in iridium and rhodium decyloxy-type diketone and pyrazolate complexes)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:301433 HCAPLUS Full-text

DOCUMENT NUMBER: 130:304346

TITLE: Correction of: 129:60842

Calamitic organometallic liquid crystals with properties of dicarbonylrhodium(I) β-diketonate complexes

Wan, Wen; Guang, Wen-Jie; Zhao, Ke-Qin; Zheng, Wei-Zhong; Zhang, Liang-Fu

CHENGDU INSTITUTE OF ORGANIC CHEMISTRY, ACADEMIA SINICA, CHENGDU, 610041, PEOP. REP. CHINA

JOURNAL OF ORGANOMETALLIC CHEMISTRY (1998), 557(2), 157-161

CODEN: JORCAI; ISSN: 0022-328X

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 18 May 1999

AB Novel organometallic complexes based on γ-substituted β-diketonate ligands with terminal metal Rh(I) were prepared by reaction of the ligands with [Rh(CO)2(μ-Cl)]2. The mesomorphism of the ligands and complexes was studied using DSC and polarizing microscopy. Nomesogenic ligands with n = 7, 8, 9, 10, 11 can form liquid crystalline phase by direct coordination to metal. The effect of the terminal C number on the mesomorphism also is discussed.

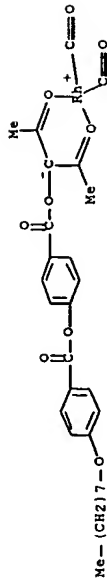
IT 207297-52-7P 207297-58-3P 207297-61-8P

207297-63-0P 208767-58-2P 208767-60-6P

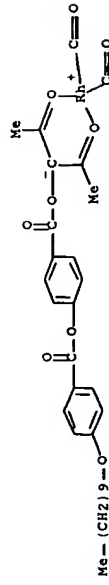
16

(preparation and liquid crystal properties of)

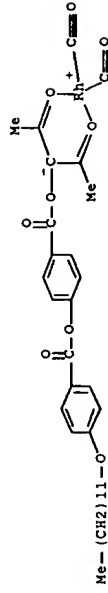
RN 207297-52-7 HCAPILUS
 CN Rhodium, [4-[[1-(acetyl-kO)-2-(oxo-kO)propoxy]carbonyl]phe
 nyl 4-(octyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



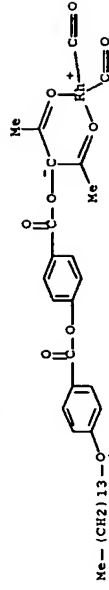
RN 207297-58-3 HCAPILUS
 CN Rhodium, [4-[[1-(acetyl-kO)-2-(oxo-kO)propoxy]carbonyl]phe
 nyl 4-(decyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



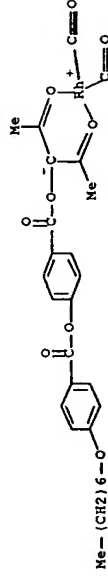
RN 207297-61-8 HCAPILUS
 CN Rhodium, [4-[[1-(acetyl-kO)-2-(oxo-kO)propoxy]carbonyl]phe
 nyl 4-(dodecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



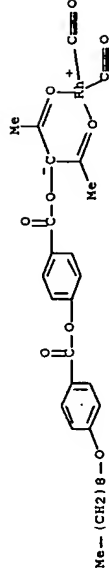
RN 207297-63-0 HCAPILUS
 CN Rhodium, [4-[[1-(acetyl-kO)-2-(oxo-kO)propoxy]carbonyl]phe
 nyl 4-(tetradecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



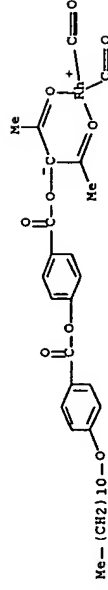
RN 208767-58-2 HCAPILUS
 CN Rhodium, [4-[[1-(acetyl-kO)-2-(oxo-kO)propoxy]carbonyl]phe
 nyl 4-(heptyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 208767-60-6 HCAPILUS
 CN Rhodium, [4-[[1-(acetyl-kO)-2-(oxo-kO)propoxy]carbonyl]phe
 nyl 4-(nonyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 208767-61-7 HCAPILUS
 CN Rhodium, [4-[[1-(acetyl-kO)-2-(oxo-kO)propoxy]carbonyl]phe
 nyl 4-(undecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



CC 75-11 (Crystallography and Liquid Crystals)

Section cross-reference(s): 78

IT 207297-52-7P 207297-58-3P 207297-61-8P
 207297-63-0P 208767-58-2P 208767-60-6P
 208767-61-7P

(preparation and liquid crystal properties of)

REFERENCE COUNT: 17
 THERE ARE 17 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
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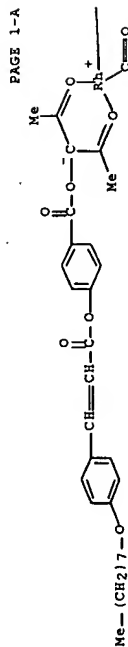
L23 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:36766 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:160904
 TITLE: Calamitic organometallic liquid crystals of
 β -diketonate dicarbonylrhodium(I) complexes
 AUTHOR(S): Wan, Wen; Zhao, Ke-Qin; Guang, Wen-Jie; Wang,
 Chun-Yan; Zhang, Liang-Fu
 CORPORATE SOURCE: Chengdu Institute of Organic Chemistry, Academia
 Sinica, Chengdu, 610041, Peop. Rep. China
 SOURCE: Molecular Crystals and Liquid Crystals Science and
 Technology, Section A: Molecular Crystals and
 Liquid Crystals (1998), 317, 83-91
 CODEN: MCLCE9; ISSN: 1058-725X
 PUBLISHER: Gordon & Breach Science Publishers
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 20 Jan 1999
 AB New rodlike organometallic complexes based on the β -diketonate ligands with
 terminal metal were synthesized. The mesomorphism of the ligands and
 complexes was studied using DSC and polarizing microscopy. Most of the
 complexes display nematic mesogenic behavior identically with that exhibited
 by the ligands. The effect of the C number of the terminal chain on the
 mesomorphism is discussed.

IT 202209-35-6P 220218-42-8P 220218-45-1P
 220218-46-2P 220218-48-4P 220218-49-5P

(preparation and liquid crystal properties of)

202209-35-6 HCAPLUS

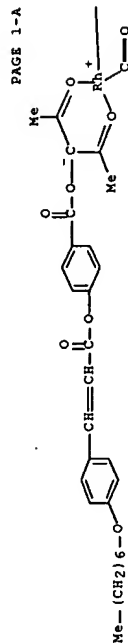
RN Rhodium, [1-(acetyl- κ O)-2-(oxo- κ O)propyl
 CN 4-[[[(2E)-3-{4-(octyloxy)phenyl]-1-oxo-2-propenyloxy]benzoato]dicarbon
 yl-, (SP-4-2)- (9CI) (CA INDEX NAME)



PAGE 1-B

-C(=O)O

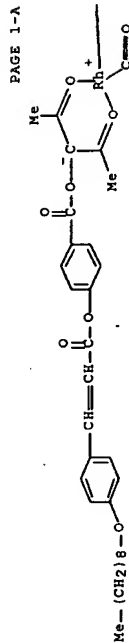
RN 220218-42-8 HCAPLUS
 CN Rhodium, [1-(acetyl- κ O)-2-(oxo- κ O)propyl
 4-[[[(2E)-3-{4-(heptyloxy)phenyl]-1-oxo-2-propenyloxy]benzoato]dicarbon
 yl-, (SP-4-2)- (9CI) (CA INDEX NAME)



PAGE 1-B

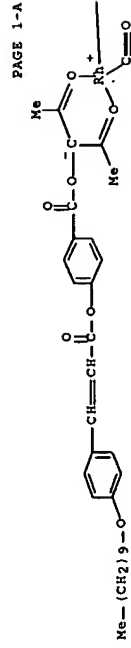
-C(=O)O

RN 220218-45-1 HCAPLUS
 CN Rhodium, [1-(acetyl- κ O)-2-(oxo- κ O)propyl
 4-[[[(2E)-3-{4-(nonyloxy)phenyl]-1-oxo-2-propenyloxy]benzoato]dicarbon
 yl-, (SP-4-2)- (9CI) (CA INDEX NAME)

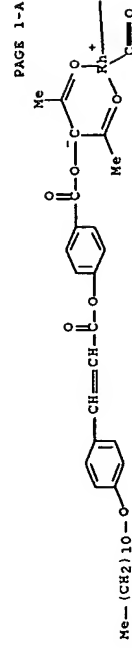




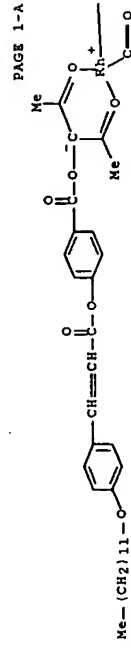
RN 220218-46-2 HCAPLUS
CN Rhodium, [1-(acetyl-ko)-2-(oxo-ko)propyl
4-(((2E)-3-[4-(decyloxy)phenyl]-1-oxo-2-
propenyl)oxy)benzoato]dicarbonyl-, (9CI) (CA INDEX NAME)



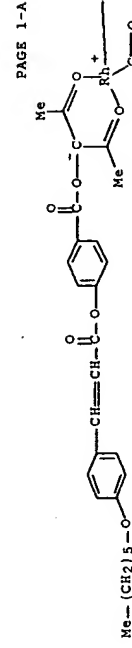
RN 220218-48-4 HCAPLUS
CN Rhodium, [1-(acetyl-ko)-2-(oxo-ko)propyl
4-(((2E)-1-oxo-3-[4-(undecyloxy)phenyl]-2-
propenyl)oxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 220218-49-5 HCAPLUS
CN Rhodium, [1-(acetyl-ko)-2-(oxo-ko)propyl
4-(((2E)-3-[4-(dodecyloxy)phenyl]-1-oxo-2-
propenyl)oxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



IT 220218-41-7P
(preparation and thermal behavior of)
RN 220218-41-7 HCAPLUS
CN Rhodium, [1-(acetyl-ko)-2-(oxo-ko)propyl
4-(((2E)-3-[4-(hexyloxy)phenyl]-1-oxo-2-
propenyl)oxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)





OC 75-11 (Crystallography and Liquid Crystals)
 Section cross-reference(s): 25, 78
 IT 202209-34-5P 202209-35-6P 20218-28-0P 220218-30-4P
 220218-33-7P 220218-35-3P 220218-37-1P 220218-39-3P
 220218-42-8P 220218-45-1P 220218-46-2P
 220218-48-4P 220218-49-5P
 (preparation and liquid crystal properties of)

IT 220218-41-7P
 (preparation and thermal behavior of)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L23 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 1998:332875 HCAPLUS Full-text
 129:60842

Catalytic organometallic liquid crystals with
 terminal metal. Syntheses and liquid crystal
 properties of dicarbonylrhodium(I)
 β -diketonate complexes

Wan, Wen; Guang, Wen-Jie; Zhao, Ke-Qin; Zheng,
 Wei-Zhong; Liang-Fu Zhang
 Chengdu Institute of Organic Chemistry, Academia
 Sinica, Chengdu, 610041, Peop. Rep. China
 Journal of Organometallic Chemistry (1998),
 557(2), 157-161
 CODEN: JORCAI; ISSN: 0022-328X

PUBLISHER: Elsevier Science S.A.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

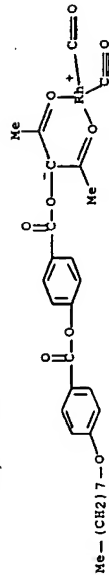
ED Entered STN: 04 Jun 1998
 AB Novel organometallic complexes based on γ -substituted β -diketone ligands with
 terminal metal Rh(I) were prepared by reaction of the ligands with $[\text{Rh}(\text{CO})_2(\mu\text{-Cl})_2]$. The mesomorphism of the ligands and complexes was studied using DSC
 and polarizing microscopy. Nonmesogenic ligands with $n = 7, 8, 9, 10, 11$ can
 form liquid crystalline phase by direct coordination to metal. The effect of
 the terminal C number on the mesomorphism also is discussed.

IT 207297-52-7P 207297-58-3P 207297-61-8P
 207297-63-0P 208767-58-2P 208767-60-6P
 208767-61-7P

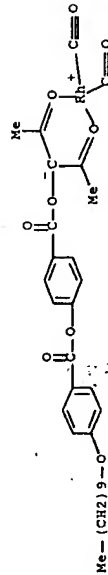
(preparation and liquid crystal properties of)

RN 207297-52-7 HCAPLUS

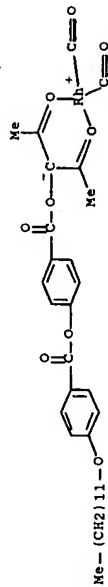
CN Rhodium, [4-([1-(acetyl- κO)-2-(oxo- κO)propoxy]carbonyl)phenoxy] 4-(octyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



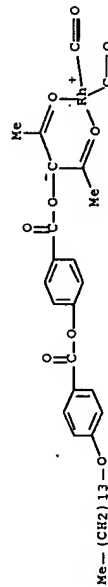
RN 207297-58-3 HCAPLUS
 CN Rhodium, [4-([1-(acetyl- κO)-2-(oxo- κO)propoxy]carbonyl)phenoxy] 4-(octyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 207297-61-8 HCAPLUS
 CN Rhodium, [4-([1-(acetyl- κO)-2-(oxo- κO)propoxy]carbonyl)phenoxy] 4-(dodecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)

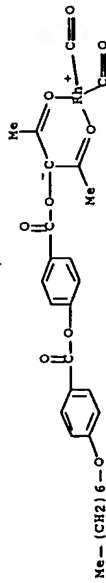


RN 207297-63-0 HCAPLUS
 CN Rhodium, [4-([1-(acetyl- κO)-2-(oxo- κO)propoxy]carbonyl)phenoxy] 4-(tetradecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)

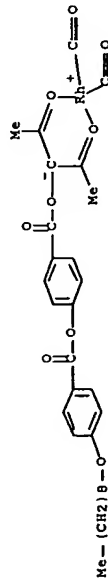


RN 208767-58-2 HCAPLUS

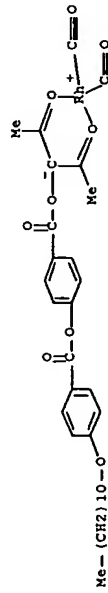
CV Rhodium, [4-((1-(acetyl- κ O))-2-(oxo- κ O)propoxy)carbonyl]phenyl 4-(heptyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 208767-60-6 HCAPLUS
CN Rhodium, [4-((1-(acetyl- κ O))-2-(oxo- κ O)propoxy)carbonyl]phenyl 4-(nonyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 208767-61-7 HCAPLUS
CN Rhodium, [4-((1-(acetyl- κ O))-2-(oxo- κ O)propoxy)carbonyl]phenyl 4-(undecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



CC 75-11 (Crystallography and Liquid Crystals)
Section cross-reference(s): 78
IT 207297-52-7P 207297-58-3P 207297-61-8P
207297-63-0P 208767-58-2P 208767-60-6P
208767-61-7P
(preparation and liquid crystal properties of)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:331599 HCAPLUS Full-text

DOCUMENT NUMBER: 129:11967
TITLE: Influence of the Bridging Group of Cross-Conjugated Nitrogenous Bases on the Spectra and Structure of Solvatochromic Mixed-Ligand Copper(II) Chelates Containing β -Ketoenols

AUTHOR(S): Tsiamis, Chris; Hatzidimitriou, Antonis G.;

CORPORATE SOURCE: Travellias, Leandros C.

Department of Chemistry, University of Thessaloniki, Thessaloniki, 54006, Greece
Inorganic Chemistry (1998), 37(12), 2903-2909

SOURCE: CODEN: INOCAJ; ISSN: 0020-1669

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 04 Jun 1998

AB The concomitant reaction of Cu(II) with a heterocyclic nitrogenous cross-conjugated Lewis base (2,2'-dipyridyl ketone, dpk, or 2,2'-dipyridylamine, dpamh) and the anion of a 2-substituted 1,3-dione, β -, α -, γ -X-acac- (X = H, Me, Cl, CN, NO₂) affords mixed-ligand chelates. The composition and structure of the chelates depend on the group linking the pyridyl rings. Chelation renders the 2,2'-dipyridyl ketone susceptible to nucleophilic attack by protic mols. It also depends on the group attached to the β -dionato moiety since electron attracting substituents facilitate ligation of a H₂O mol. when the 2,2'-dipyridylamine is present. Spectroscopic observations indicated square pyramidal or distorted tetragonal stereochemistries of the ensuing mixed-ligand chelates with the carbonyl oxygens and the pyridyl nitrogens forming the basal plane. Confirmation was acquired by x-ray structure determination of representative chelates. [Cu(NC-acac)(dpamh(H₂O) OClO₃)] crystallizes in the space group Fm $\bar{3}$ m with Z = 8 (i.e. four mols. per cell), a 17.996(1), b 13.972(1), c 7.801(1) Å. The Cu atom is 2.401(3) Å from the O of the H₂O mol. and 2.60(2) Å from an O atom of the ClO₄- group. The chelate [Cu(NC-acac)(dpk(OH)OCH₃(OClO₃))], resulting from the addition of MeOH to the C atom bridging the pyridyl rings, crystallizes in the space group P2₁/n with a 10.661(1), b 14.987(2), c 13.963(1) Å, β 110.57(3)°, Z = 4. An O of the ClO₄- group is in apical position, and it is 2.634(6) Å from the Cu atom. The etheric O is distanced 2.615(2) Å from the Cu atom, and the O-Cu-O angle of these weak bonds is only 154.4(2)°. In these chelates the nitrogenous bases adopt the boat conformation with the pyridyl rings forming dihedral angles of approx. 33°.

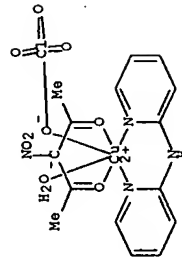
IT 207454-65-7P 207454-72-6P

(preparation and UV-vis. spectrum of)

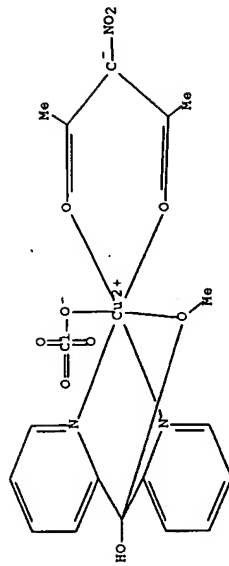
RN 207454-65-7 HCAPLUS

CN Copper, aqua (3-nitro-2,4-pentanedionato- κ O, κ O') (perchlorat

o- κ O) [N-(2-pyridinyl- κ N)-2-pyridinamine- κ N1]-, (OC-6-34)- (9CI) (CA INDEX NAME)



RN 207454-72-6 HCAPLUS
 CN Copper, [α-(methoxy-κO)-α-(2-pyridinyl-κN)-2-pyridinemethanol-κN][3-nitro-2,4-pentanedionato-κO,κO'] (perchlorato-κO)', (OC-6-34)- (9CI) (CA INDEX NAME)

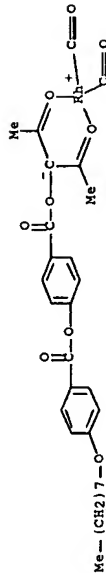


CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 75
 IT 207454-61-3P 207454-62-4P 207454-63-5P 207454-65-7P
 207454-66-8P 207454-67-9P 207454-68-0P 207454-69-1P
 207454-70-4P 207454-72-6P

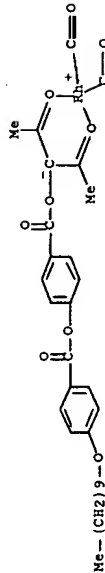
(preparation and UV-vis. spectrum of)
 REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

123 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:228221 HCAPLUS Full-text
 DOCUMENT NUMBER: 128:329098
 TITLE: Synthesis and mesomorphism of γ-substituted β-diketonate dicarbonylrhodium(I) complexes
 AUTHOR(S): Wan, Wen; Zhao, Ke-Qing; Guan, Wen-Jie; Yang, Li-Mei; Zhang, Liang-Fu
 CORPORATE SOURCE: Chengdu Inst. Organic Chem., Chinese Acad. Scis., Chengdu, 610041, Peop. Rep. China
 SOURCE: Huaxue Xuebao (1998), 56(3), 278-283
 CODEN: HHPA4; ISSN: 0567-7351
 PUBLISHER: Kexue Chubanshe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 ED Entered STN: 23 Apr 1998
 AB Rodlike organometallic liquid crystals of γ-substituted β-diketonate dicarbonyl Rh(I) complexes containing one or two benzene rings were synthesized and characterized. The effects of rigid cores, structure and the ratio of mol. length to width on the liquid crystalline properties were also studied. The model design of nematic organic liquid crystal can also direct the mol. design and synthesis of organometallic liquid crystals.
 IT 207297-52-7P 207297-58-3P 207297-61-8P

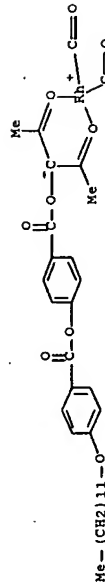
207297-63-0P (preparation and liquid crystal properties of)
 RN 207297-52-7 HCAPLUS
 CN Rhodium, [4-([1-(acetyl-κO)-2-(oxo-κO)propoxy]carbonyl)phe nyl 4-(octyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



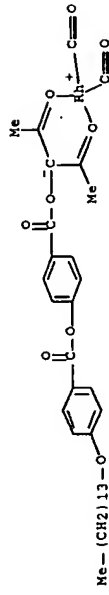
RN 207297-58-3 HCAPLUS
 CN Rhodium, [4-([1-(acetyl-κO)-2-(oxo-κO)propoxy]carbonyl)phe nyl 4-(decyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 207297-61-8 HCAPLUS
 CN Rhodium, [4-([1-(acetyl-κO)-2-(oxo-κO)propoxy]carbonyl)phe nyl 4-(dodecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



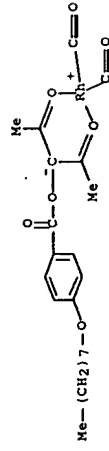
RN 207297-63-0 HCAPLUS
 CN Rhodium, [4-([1-(acetyl-κO)-2-(oxo-κO)propoxy]carbonyl)phe nyl 4-(tetradecyloxy)benzoato]dicarbonyl-, (SP-4-2)- (9CI) (CA INDEX NAME)



IT 207297-40-3P 207297-43-6P 207297-46-9P
207297-49-2P
(preparation and phase transition temps. of)

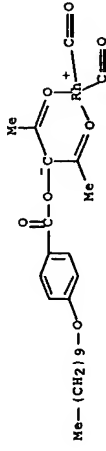
RN 207297-40-3 HCAPLUS

CN Rhodium, dicationic [1-(acetyl-κO)-2-(oxo-κO)propyl 4-(octyloxy)benzoato]-, (SP-4-2)- (9CI) (CA INDEX NAME)



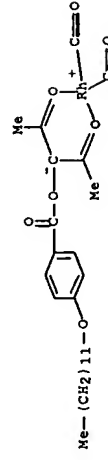
RN 207297-43-6 HCAPLUS

CN Rhodium, dicationic [1-(acetyl-κO)-2-(oxo-κO)propyl 4-(dodecyloxy)benzoato]-, (SP-4-2)- (9CI) (CA INDEX NAME)



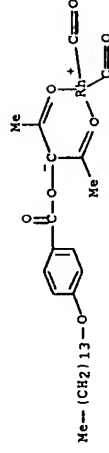
RN 207297-46-9 HCAPLUS

CN Rhodium, dicationic [1-(acetyl-κO)-2-(oxo-κO)propyl 4-(dodecyloxy)benzoato]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 207297-49-2 HCAPLUS

CN Rhodium, dicationic [1-(acetyl-κO)-2-(oxo-κO)propyl 4-(tetradecyloxy)benzoato]-, (SP-4-2)- (9CI) (CA INDEX NAME)



CC 75-11 (Crystallography and Liquid Crystals)

Section cross-reference(s): 78

IT 207297-38-9P 207297-39-0P 207297-52-7P

207297-58-3P 207297-61-8P 207297-63-0P

(preparation and liquid crystal properties of)

IT 163929-94-0P 163930-26-5P 206546-59-0P 206546-60-3P

207297-36-7P 207297-37-8P 207297-40-3P

207297-43-6P 207297-46-9P 207297-49-2P

(preparation and phase transition temps. of)

L23 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:72251 HCAPLUS Full-text

DOCUMENT NUMBER: 128:147802

TITLE: Synthesis and characterization of rod-like liquid

crystal of β-diketonate rhodium complex

Wan, Wen; Zhao, Qing; Guan, Wenjie; Wang,

Chunyan; Zhang, Liangfu

CORPORATE SOURCE: Chengdu Inst. Organic Chem., Chinese Academy Sci.,

Chengdu, 610041, Peop. Rep. China

SOURCE: Yingyong Huaxue (1997), 14(6), 81-83

CODEN: YIHUED; ISSN: 1000-0518

PUBLISHER: Yingyong Huaxue Bianji Weiyuanhui

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 07 Feb 1998

AB The rodlike liquid crystalline compound of β-diketone and its complex with

terminal carbonyl Rh were synthesized and characterized by elemental anal.,

IR, UV, and 1H NMR. Its property was studied by DSC and polarizing

microscope. The complex is a nematic thermotropic liquid crystal.

IT 202209-35-6P

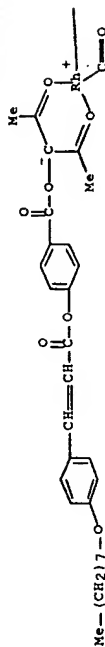
(preparation and liquid crystal properties of)

RN 202209-35-6 HCAPLUS

CN Rhodium, [1-(acetyl-κO)-2-(oxo-κO)propyl

4-[[[(2E)-3-[4-(octyloxy)phenyl]-1-oxo-2-propenyl]oxy]benzoato]dicarbon

yl-, (SP-4-2)- (9CI) (CA INDEX NAME)



- C=O

CC 75-11 (Crystallography and Liquid Crystals)

IT 202209-35-6P

Section cross-reference(s): 78
(preparation and liquid crystal properties of)

L23 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:50516 HCAPLUS Full-text

DOCUMENT NUMBER: 1261151966

TITLE: The crystal structure and properties of

[TiCl4(CH(CO2Et)3)] and [Al2Cl6(μ-

C2H4(CO2Et)2)]

AUTHOR(S): Sobota, Piotr; Szafert, Sławomir; Glowiak, Tadeusz

CORPORATE SOURCE: Faculty of Chemistry, University of Wrocław, 14 F.

Joliot-Curie, 50-383, Wrocław, Pol.

SOURCE: Journal of Organometallic Chemistry (1996),

526(2), 329-333

CODEN: JORCAI; ISSN: 0022-328X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Jan 1997

AB The reactions of TiCl4 with CH(CO2Et)3 and AlCl3 with C2H4(CO2Et)2 in CH2Cl2 gave [TiCl4(CH(CO2Et)3)] (1) and [Al2Cl6(μ-C2H4(CO2Et)2)] (2) resp. The crystal structures of 1 and 2 were determined by a single crystal x-ray

diffraction studies and refined by full-matrix least squares techniques to R1

= 0.0272 and 0.0282 (for 2654 and 1274 unique nonzero reflections) for 1 and 2

resp. The crystals of 1 belong to the space group C2/c with Z = 8 and a

17.131(8), b 10.715(3), c 18.512(5) Å and β 92.97(3)°. The titanium atom in 1

is octahedrally coordinated by four terminal chlorine atoms and two oxygen

atoms in cis position from the coordinated triester mol. Crystals of 2 are

monoclinic, space group P21/c, Z = 4, a 14.109(2), b 10.049(2), c 15.644(3) Å

and β 116.65(2)°. In the mol. dimeric compound, each aluminum atom is

tetrahedrally coordinated by three terminal chlorine atoms and one oxygen atom

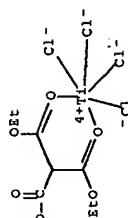
from the bridging di-Et succinate mol.

IT 186505-59-9P

RH (preparation and crystal structure)

186505-59-9 HCAPLUS

31

CC Titanium, tetrachloro(triethyl methanetricarboxylate-
KO⁺,KO⁺),-, (OC-6-22)- (9CI) (CA INDEX NAME)

CC 78-7 (Inorganic Chemicals and Reactions)

IT 186505-59-9P

Section cross-reference(s): 75
(preparation and crystal structure)

REFERENCE COUNT: 17

THERE ARE 17 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L23 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:875502 HCAPLUS Full-text

DOCUMENT NUMBER: 123:328439

TITLE: Hybridization effects on the spectra and structure

of solvatochromic copper(II) chelates containing

β-diones and nitrogenous bases

Tsiamis, Chris; Youri-Isochatzi, Catherine;

Hatzidimitriou, Antony; Gourdon, Andre

Department of Chemistry, University of

Thessaloniki, Thessaloniki, 54006, Greece

Inorganica Chimica Acta (1995), 237(1-2), 93-102

CODEN: ICHAA3; ISSN: 0020-1693

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 25 Oct 1995

AB Cu(II) chelates containing a bidentate nitrogenous base (1,2-diamine or

heteroatom. α-dimine, enR), the anion of a β-dione, β⁻, and the ClO4⁻ group,

[Cu(enR)β]ClO4, was prepared and characterized and the influence of

hybridization of the N donor atoms on the spectra and structure of these

comps. was assessed. The spectra (IR, ESR, electronic excitation) indicate

that in the absence of steric interference, the CuN2O2 chromophore attains

square planar geometry. The ESR observables suggest appreciable covalency.

Changes in the structure occur because of the susceptibility of the

coordinatively unsatd. [Cu(enR)β]⁺ entity to covalent interactions, which areenhanced as the hybridization of the N donor atoms changes from sp³ to sp².

The solvatochromism of the comps. implicates tetragonal distortions in

strongly polar solvents and deformed square pyramidal structures in the

presence of weakly coordinating anions or mols. Details of the structure of

the [Cu(enR)β]⁺ entity and the conformation and configuration of the 1,2-

diamines were gathered from the x-ray study of (1-(2-

aminoethyl)pyrrolidine)(pentane-2,4-dionato)copper(II) perchlorate,

[Cu(aep)acac]ClO4. The orthorhombic compound crystallizes in the Pna21 space

group. The crystal data and the R value are: a 24.5370(7), b 8.4783(4), c

32

7.6720(3) Å, Vc = 1596(1) Å³, Z = 4, R = 0.0428 for 1099 observed unique reflections.

IT 152748-68-0P 170659-63-9P 170659-65-1P
170659-67-3P 170659-69-5P 170659-71-9P

170659-73-1P
(preparation and hybridization effects in solvatochromic copper dione nitrogenous base complexes)

RN 152748-68-0 HCAPLUS

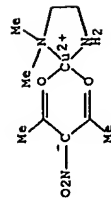
CN Copper(1+), (N,N'-dimethyl-1,2-ethanediamine-N,N') (3-nitro-2,4-pentanedionato-02,04)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 152748-67-9

CMF C9 H18 Cu N3 O4

CCI CCS



CM 2

CRN 14797-73-0

CMF Cl O4



RN 170659-63-9 HCAPLUS

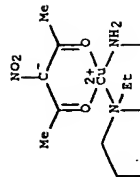
CN Copper(1+), (3-nitro-2,4-pentanedionato-02,04) (1-pyrrolidinoethanamine-N,N')-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 170659-62-8

CMF Cl1 H20 Cu N3 O4

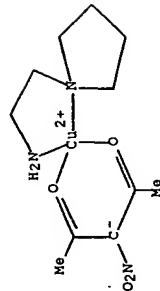
CCI CCS



CM 2

CRN 14797-73-0

CMF Cl O4



CM 2

CRN 14797-73-0

CMF Cl O4



RN 170659-65-1 HCAPLUS

CN Copper(1+), (1-ethyl-2-pyrrolidinethanamine-N,N') (3-nitro-2,4-pentanedionato-02,04)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 170659-64-0

CMF Cl2 H22 Cu N3 O4

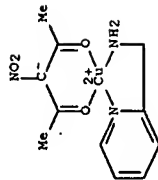
CCI CCS



RN 170659-67-3 HCAPLUS
CN Copper(1+), (3-nitro-2,4-pentanedionato-02,04) (2-pyridinemethanamine-N1,N2)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 170659-66-2
CMF Cl1 H14 Cu N3 O4
CCI OCS



CM 2

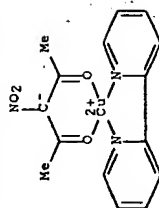
CRN 14797-73-0
CMF Cl O4



RN 170659-69-5 HCAPLUS
CN Copper(1+), (2,2'-bipyridine-N,N') (3-nitro-2,4-pentanedionato-02,04)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 170659-68-4
CMF Cl5 H14 Cu N3 O4
CCI OCS



CM 2

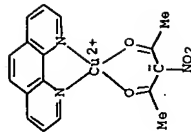
CRN 14797-73-0
CMF Cl O4



RN 170659-71-9 HCAPLUS
CN Copper(1+), (3-nitro-2,4-pentanedionato-02,04) (1,10-phenanthroline-N1,N10)-, (SP-4-2)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 170659-70-8
CMF Cl7 H14 Cu N3 O4
CCI OCS



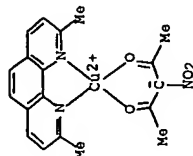
CM 2

CRN 14797-73-0
CMF Cl O4



RN 170659-73-1 HCAPIJUS
CN Copper(1+), (2,9-dimethyl-1,10-phenanthroline-N1,O10) (3-nitro-2,4-pentanedionato-O2,O4)-, perchlorate (9CI) (CA INDEX NAME)

CM 1
CRN 170659-72-0
CMF C19 H18 Cu N3 O4
CCI CCS



CM 2
CRN 14797-73-0
CMF Cl O4



CC 78-7 (Inorganic Chemicals and Reactions)
IT Section cross-reference(s): 73, 75
152748-68-0P 170659-63-9P 170659-65-1P
170659-67-3P 170659-69-5P 170659-71-9P
170659-73-1P

(preparation and hybridization effects in solvatochromic copper dione nitrogenous base complexes)

L23 ANSWER 19 OF 28 HCAPIJUS COPYRIGHT 2007 ACS on STN

1994:123308 HCAPIJUS Full-text
ACCESSION NUMBER: 120:123308
DOCUMENT NUMBER:
TITLE:

Counterion effects in the spectra and structure of solvatochromic copper(II) chelates containing 1,2-diamines and β -ketoenols

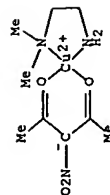
AUTHOR(S): Tsiamis, Chris; Tzavellas, Leandros C.
CORPORATE SOURCE: Department of Chemistry, University of Thessaloniki, Thessaloniki, 54006, Greece
SOURCE: Inorganica Chimica Acta (1993), 207(2), 179-90
CODEN: ICHAA3; ISSN: 0020-1693

DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Mar 1994

AB The concurrent reaction of Cu(II) salts with certain β -diones and N-substituted 1,2-diaminoethanes (enR) is reported. The influence of γ -position derivs. of 2,4-pentanedione (X-acacH; X = H, CN, NO₂) is described, and the contribution of anions to the stability, the stereochem. and the electronic structure of the resulting mixed-ligand chelates is discussed. Spectroscopic observations disclose that the bidentate ligands form chelate rings with Cu(II) as common vertex. [Cu(β -dionato)enR]⁺ are virtually square-planar with CuNO₂ chromophore. Cu(II) coordination is unsatd. and in addition to electrostatic interactions that prevail when bulky polyat. anions counterbalance the pos. charge, it is capable of forming covalent bonds with neutral mol's. and charged species such as the halides and pseudohalides. The basal CuNO₂ plane is distorted upon coordination of unidentate ligands residing on the apex of the resulting square-pyramidal structure. Further increase in the coordination number of Cu(II) by bidentate anions or neutral mol's. leads to tetragonally distorted octahedral structures. This change in the symmetry of the field induced on Cu(II) is revealed by spectral shifts that also disclose covalent interactions in the encounters of the CuNO₂ chromophore with polar or polarizable mol's. These interactions are enhanced with increasing ability of the attacking species to act as an electron pair donor. Linear dependence of the ligand field excitation maximum on the denticity of the attacking species was established.

IT 152748-68-0P 152767-34-5P
(preparation and solvent effect in electronic spectra of)
RN 152748-68-0 HCAPIJUS
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-N,N') (3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1
CRN 152748-67-9
CMF C9 H18 Cu N3 O4
CCI CCS



CM 2

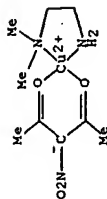
CRN 14797-73-0
CMF C1 O4



RN 152767-34-5 HCAPLUS
CN Copper(1+), (N,N-dimethyl-1,2-ethanediamine-κN,κN')(3-nitro-2,4-pentanedionato-κO,κO')-, (SP-4-3)-, nitrate (9CI) (CA INDEX NAME)

CM 1

CRN 152748-67-9
CMF C9 H18 Cu N3 O4
CCI CCS



CM 2

CRN 14797-55-8
CMF N O3



OC 78-7 (Inorganic Chemicals and Reactions)

IT Section cross-reference(s): 73
62191-97-3P 150154-11-3P 150154-09-9P 150154-12-4P
150154-13-5P 150154-14-6P 150154-15-7P 150174-19-9P
150205-47-3P 152748-63-5P 152748-64-6P 152748-65-7P
152748-66-8P 152748-68-0P 152767-34-5P
152767-35-6P 152767-36-7P
(preparation and solvent effect in electronic spectra of)

L23 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

39

1993:436490 HCAPLUS Full-text
ACCESSION NUMBER: 119:36490
DOCUMENT NUMBER:
TITLE: Substituent and solvent effects in the spectra and structure of some mixed-ligand copper(II) chelates containing β-ketoenols

AUTHOR(S):
CORPORATE SOURCE:

Tsiamis, Chris; Themeli, Maria
Department of Chemistry, University of
Thessaloniki, Thessaloniki, 54006, Greece
Inorganica Chimica Acta (1993), 206(1), 105-15
CODEN: ICHAAJ; ISSN: 0020-1693

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 24 Jul 1993

AB The IR and the ligand-field excitation spectra of a series of new mixed-ligand copper(II) chelates that encompass N, N'-dimethyl-N'-ethyl-ethylenediamine (dmeen) and the anion of a substituted β-ketoenol (1,3-dione) were obtained in the solid state and in solution. Information related to the electronic excitation spectra, the IR spectra, the molar conductivity and the magnetic properties of the newly obtained and characterized chelates are presented and discussed. The molar conductivity in nitromethane reveals a predominance of electrostatic interactions between the [Cu(β-dione/dmeen)+ entity and bulky polyat. anions that counterbalance the pos. charge while the IR spectra disclose that the bidentate ligands form chelate rings with copper as the common vertex. The resulting CuN2O2 chromophore attains a square-coplanar structure and exhibits a tendency for axial ligation which is enhanced when electron-attracting substituents are attached to the β-dionato moiety. The tendency for axial ligation is partially fulfilled when suitable nucleophiles are present. Covalent interactions prevail when chloride is present and upon coordination it presumably occupies the apex of a square-pyramidal structure. Chair-like bidentate anions enable copper(II) to achieve coordination saturation and when configuration requirements demand it, they distort the square-planar arrangement of the initial CuN2O2 chromophore forming distorted octahedral structures. Covalent solute-solvent interactions are revealed by shifts in the ligand-field excitation spectra that are enhanced as the nucleophilicity of the solvent increases. Linear dependence of the ligand-field excitation maximum on solvent parameters related to donor properties is generally observed.

IT 148379-26-4P 148379-27-5P 148379-28-6P

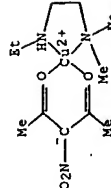
(preparation and IR spectra and ligand field excitation spectra of)

RN 148379-26-4 HCAPLUS

CN Copper(1+), (N'-ethyl-N,N'-dimethyl-1,2-ethanediamine-κN,κN')(3-nitro-2,4-pentanedionato-κO,κO')-, (SP-4-3)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 148379-25-3
CMF C11 H22 Cu N3 O4
CCI CCS

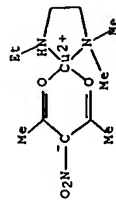


40

CM 2
CRN 14797-73-0
CWF Cl O4



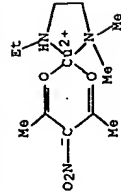
RN 148379-27-5 HCAPLUS
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N') (3-nitro-2,4-pentanedionato-O2,O4)-, (SP-4-3)-, nitrate (9CI) (CA INDEX NAME)
CM 1
CRN 148379-25-3
CWF Cl1 H22 Cl N3 O4
CCI CCS



CM 2
CRN 14797-55-8
CWF N O3



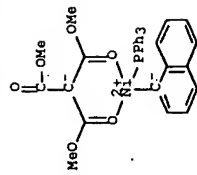
RN 148379-28-6 HCAPLUS
CN Copper(1+), (N'-ethyl-N,N-dimethyl-1,2-ethanediamine-N,N') (3-nitro-2,4-pentanedionato-O2,O4)-, chloride, (SP-4-3)- (9CI) (CA INDEX NAME)



CC 73-3 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 78
IT 145518-79-2P 145519-12-6P 145519-14-8P 145519-20-6P
145519-22-8P 145519-28-4P 148353-92-8P 148353-94-0P
148353-95-1P 148353-97-3P 148379-24-2P 148379-26-4P
148379-27-5P 148379-28-6P 148379-30-0P
148379-32-2P 148379-34-4P 148379-36-6P 148379-38-8P
148379-39-9P 148379-40-2P 148379-44-6P 148415-03-6P
(preparation and IR spectra and ligand field excitation spectra of)

L23 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:609179 HCAPLUS Full-text
DOCUMENT NUMBER: 105:209179
TITLE: Synthesis and structure of new arylnickel(II) malonato complexes
AUTHOR(S): Agnes, Giovanni; Bart, Jan C. J.; Calcaterra, Mario; Cavigiolo, Walter; Santini, Claudio
CORPORATE SOURCE: Ist. G. Donegani S.p.A., Novara, 28100, Italy
SOURCE: Transition Metal Chemistry (Dordrecht, Netherlands) (1986), 11(7), 246-52
CODEN: TMCHIN; ISSN: 0340-4285
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:209179
ED Entered STN: 13 Dec 1986
AB Reaction of malonate anions with chloro(aryl)bis(organo-phosphine)nickel(I I) species. complexes gives stable (aryl)(malonato)(organo-phosphine)nickel(I I) species. The x-ray crystal and mol. structure of (diethylmalonato-O,O)(alpha-naphthyl)(triphenylphosphine)nickel(II) shows distorted square-planar O2PC coordination about the Ni. The parameters and bonding of the triphenylphosphine-nickel and naphthyl moieties in the complex are normal, whereas considerable electron-delocalization occurs in the planar ethylmalonato moiety. The alpha-naphthyl ligand is oriented almost perpendicularly in the IO2CP core-malonate plane.

IT 105203-94-9P
(preparation and spectra of)
RN 105203-94-9 HCAPLUS
CN Nickel, 1-naphthalenyl(trimethyl methanetricarboxylato)(triphenylphosphine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



CC 29-13 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 75
 IT 105203-91-6P 105203-92-7P 105203-93-8P 105203-94-9P
 105203-95-0P 105203-96-1P
 (preparation and spectra of)

L23 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1979:121770 HCAPLUS Full-text
 DOCUMENT NUMBER: 90:121770

TITLE: Reactions of dimethyl 3-oxoglutarate with zerovalent compounds of palladium and platinum. Preparation of 1-metalacyclobutan-3-one complexes and the x-ray crystal structure of 2,4-bis(methoxycarbonyl)-1,1-bis(triphenylphosphine)platinacyclobutan-3-one
 AUTHOR(S): Clarke, David A.; Kemmitt, Raymond D. W.; Mazid, Muhammed A.; Schilling, Michael D.; Russell, David R.

CORPORATE SOURCE: Dep. Chem., Univ. Leicester, Leicester, UK
 SOURCE: Journal of the Chemical Society, Chemical Communications (1978), (17), 744-5
 CODEN: JCCOM; ISSN: 0022-4936

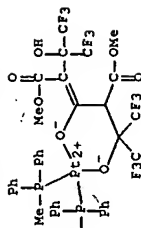
DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 12 May 1984
 AB (MeO2CCH2)2CO reacted with ML4 (M = Pt, L = PPh3, PMePh2, PMe2Ph; M = Pd, L = PPh3) in C6H6 in the presence of dioxgen (room temperature) to give the corresponding metallacyclobutanones I (M, L as before) (60-85%). The x-ray structure of I (M = Pt, L = PPh3) indicated the presence of a highly puckered platinacyclobutanone ring. I (M = Pt, L = PMePh2) underwent a ring expansion reaction with (F3C)2CO to give 51% platinadioxane II.

IT 69503-10-2P

(preparation of)

RN 69503-10-2 HCAPLUS
 CN Platinum, [dimethyl 3-hydroxy-2,4-bis[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-2-pentenedioato(2-)-O3,O4]bis(methyldiphenylphosphine)-, (SP-4-3)- (9CI) (CA INDEX NAME)



CC 29-13 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 23, 75
 IT 69503-08-8P 69503-09-9P 69503-10-2P 69503-11-3P
 (preparation of)

L23 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1978:114525 HCAPLUS Full-text
 DOCUMENT NUMBER: 88:114525

TITLE: Nitration of some mixed ligand copper(II) complexes of acetylacetone, benzoylacetone, dibenzylmethane and Schiff bases
 AUTHOR(S): Doraswamy, Uma; Bhattacharya, P. K.
 CORPORATE SOURCE: Dep. Chem., Maharaja Sayajirao Univ. Baroda, Baroda, India

SOURCE: Indian Journal of Chemistry, Section A: Inorganic, Physical, Theoretical & Analytical (1977), 15A(9), 828-9
 CODEN: IJCAUD; ISSN: 0376-4710

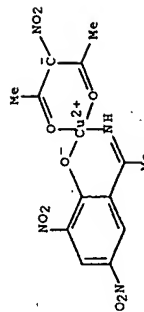
DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 12 May 1984
 AB Nitration of the coordinated ligands in complexes of the type [CuL']₂, where HL' = salicylaldehyde, 2-hydroxyacetophenimine, or 2-hydroxy-3-methylacetophenimine and HL' = acetylacetone, benzoylacetone, or dibenzylmethane, was carried out. Trinitro compounds were obtained in all cases, except that of 2-hydroxy-3-methylacetophenimine where a dinitro compound was obtained. The substitution products characterized by elemental anal., magnetic moments, conductance measurements, and IR spectral studies.

IT 65588-31-0P 65588-32-1P 65888-28-0P

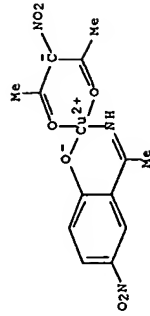
(preparation of)

RN 65588-31-0 HCAPLUS
 CN Copper, [2-(1-iminoethyl)-4,6-dinitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)

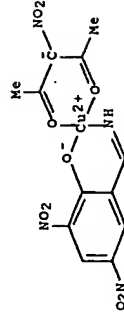


10/529,569 Page 45 of 64

RN 65588-32-1 HCAPLUS
CN Copper, [2-(1-iminoethyl)-4-nitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



RN 65888-28-0 HCAPLUS
CN Copper, [2-(1-iminoethyl)-4,6-dinitrophenolato-N2,O1](3-nitro-2,4-pentanedionato-O2,O4)- (9CI) (CA INDEX NAME)



CC 78-7 (Inorganic Chemicals and Reactions)
IT 65588-29-6P 65588-30-9P 65588-31-0P 65588-32-1P
65888-28-0P (preparation of)

L23 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1977:164622 HCAPLUS Full-text
DOCUMENT NUMBER: 86:164622
TITLE: The halogenation and nitration of the optical

active isomer of the α-acetylacetonato(triethylenetetramine)cobalt(III) complex
Kuroda, Kazuhiro; Yamaguchi, Kazumi; Yamaoka, Noriko

Fac. Sci., Ehime Univ., Matsuyama, Japan
Buletin of the Chemical Society of Japan (1977), 50(2), 535-6

CODEN: BCSJAB; ISSN: 0009-2673

DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 12 May 1984

AB The methylidyne H of the coordinated acetylacetonate ion in (+)D-α-acetylacetonato(triethylenetetramine)cobalt(III) perchlorate was replaced with halogens and with a nitro group with a complete retention of the configuration. The order of the molar rotations of the complexes is:

10/529,569 Page 46 of 64

acetylacetonate < 3-chloroacetylacetonate < 3-bromoacetylacetonate < 3-iodoacetylacetonate and acetylacetonate .apprx.3-nitroacetylacetonate.

IT 62653-74-1P 62860-66-6P (preparation of)

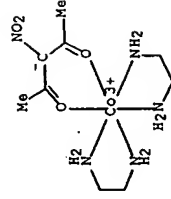
RN 62653-74-1 HCAPLUS
CN Cobalt(2+), bis(1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-22-A)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 62653-73-0

CMF C9 H22 Co N5 O4

CCI CCS



CM 2

CRN 14797-73-0

CMF Cl O4



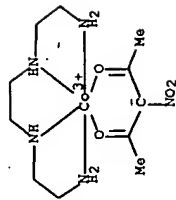
RN 62860-66-6 HCAPLUS
CN Cobalt(2+), [N,N'-bis(2-aminoethyl)-1,2-ethanediamine-N,N',N'',N'''][(3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-32-A)-, diperchlorate (9CI) (CA INDEX NAME)]

CM 1

CRN 62860-65-5

CMF Cl1 H24 Co N5 O4

CCI CCS

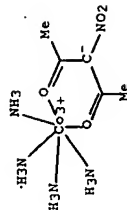


CM 2
CRN 14797-73-0
CMF Cl O4



(preparation of)
RN 56371-44-9 HCAPLUS
CN Cobalt(2+), tetraamine(3-nitro-2,4-pentanedionato-02,04)-,
(OC-6-22)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1
CRN 56371-43-8
CMF CS H18 Co N5 O4
CCI CCS



CM 2
CRN 14797-73-0
CMF Cl O4



RN 56371-48-3 HCAPLUS
CN Cobalt(2+), bis(1,2-ethanediamine-N,N') (3-nitro-2,4-pentanedionato-02,04)-, (OC-6-22)-, diperchlorate (9CI) (CA INDEX NAME)

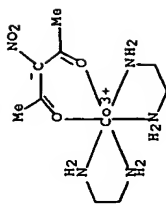
CM 1
CRN 56371-47-2
CMF CS H22 Co N5 O4
CCI CCS

CC 78-7 (Inorganic Chemicals and Reactions)
IT 62653-70-7P 62653-72-9P 62653-74-1P 62653-76-3P
62860-60-0P 62860-62-2P 62860-64-4P 62860-66-6P
(preparation of)

L23 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
1976:866108 HCAPLUS Full-text
85:186108
Halogenation and nitration of some mixed ligand
acetylacetonatocobalt(III) complexes
Kuroda, Kaahiro; Yoshitani, Kouzou; Kunigita,
Kazufumi; Kamiiba, Yukiko; Watanabe, Kiyokatsu
Fac. Sci., Ehime Univ., Matsuyama, Japan
Bulletin of the Chemical Society of Japan (1976),
49(9), 2445-50
CODEN: BCSJAB; ISSN: 0009-2673

DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB In [Co(acac)(NH3)4](ClO4)2 (Hacac = acetylacetonate), (Co(acac)en2)(ClO4)2,
[Co(acac)L](ClO4)2 (L = alpha- and beta-triethylenetetramine), and fac(N)- and
mer(N)-[Co(acac)Q]ClO4 (HQ = bis(2-aminoethyl)aminoacetic acid), the methine
hydrogen of the coordinated acetylacetonate ion was substituted with Cl, Br,
and I and in 5 of them, except mer(N)-[Co(acac)Q]ClO4, it has been substituted
with a nitro group. The halogenated and the nitrated complexes were isolated
and identified by means of electronic absorption spectra and NMR spectra. The
effects of the substitutions on the properties and the characteristics of the
substitution reactions are described and discussed.

IT 56371-44-9P 56371-48-3P 56371-52-9P
56371-54-1P 56390-71-7P



CM 2

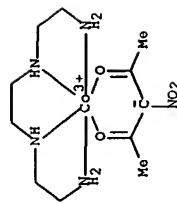
CRN 14797-73-0
CMF Cl O4
CCI CCS



RN 56371-52-9 HCAPLUS
CN Cobalt(2+), [N,N'-bis(2-aminoethyl)-1,2-ethanediamine-N,N',N'',N'''] (3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-22)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 56371-51-8
CMF Cl1 H24 Co N5 O4
CCI CCS



CM 2

CRN 14797-73-0

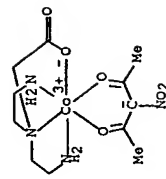
CMF Cl O4



RN 56371-54-1 HCAPLUS
CN Cobalt(1+), [N,N'-bis(2-aminoethyl)glycinato-N,N',N'',O] (3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-43)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 56371-53-0
CMF Cl1 H20 Co N4 O6
CCI CCS



CM 2

CRN 14797-73-0
CMF Cl O4

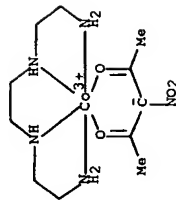


RN 56390-71-7 HCAPLUS
CN Cobalt(2+), [N,N'-bis(2-aminoethyl)-1,2-ethanediamine-N,N',N'',N'''] (3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-32)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 56390-70-6

CMF C11 H24 Co N5 O4
CCI CCS



CM 2
CRN 14797-73-0
CMF C1 O4



CC 78-7 (Inorganic Chemicals and Reactions)
IT 56371-42-7P 56371-44-9P 56371-46-1P 56371-48-3P
56371-50-7P 56371-52-9P 56371-54-1P
56390-71-7P 56353-40-3P 60912-05-2P 60912-07-4P
60922-57-8P 60922-59-0P 60922-61-4P 60922-63-6P
60944-72-1P 60966-29-2P 60966-31-6P 60966-33-8P
60966-35-0P
(preparation of)

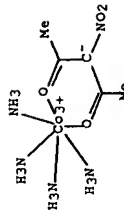
L23 ANSWER 26 OF 28 HCAPIUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:452626 HCAPIUS Full-text
DOCUMENT NUMBER: 83:52626
TITLE: Bromination of some mixed ligand
acetylacetonatocobalt(III) complexes
AUTHOR(S): Yoshitani, Kouzo; Kunigita, Kazufumi; Watanabe,
Kiyokatsu; Kuroda, Kazuo
CORPORATE SOURCE: Fac. Sci., Ehime Univ., Matsuyama, Japan
SOURCE: Chemistry Letters (1975), (6), 573-6
CODEN: CMLTAG; ISSN: 0366-7022
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Four kinds of mixed ligand acetylacetonatocobalt(III) complexes ((NH3)4-,
(en)2-, α-trien-, and β-trien-complexes) were substituted with Br, and 5 (the
above 4 and fac(N)-DTMA-complex, DTMA-4-diethylenetriaminemonoacetate ion)
were substituted with nitro group at the central methine of the ligand. The

brominated and the nitrated complexes were isolated and identified by
electronic absorption and NMR spectra.

IT 56371-44-9P 56371-48-3P 56371-52-9P
56371-54-1P 56390-71-7P
(preparation of)

RN 56371-44-9 HCAPIUS
CN Cobalt(2+), tetraammine(3-nitro-2,4-pentanedionato-02,04)-,
(OC-6-22)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1
CRN 56371-43-8
CMF CS H18 Co N5 O4
CCI CCS

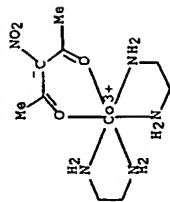


CM 2
CRN 14797-73-0
CMF C1 O4



RN 56371-48-3 HCAPIUS
CN Cobalt(2+), bis(1,2-ethanediamine-N,N')(3-nitro-2,4-pentanedionato-
02,04)-, (OC-6-22)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1
CRN 56371-47-2
CMF C9 H22 Co N5 O4
CCI CCS



CM 2

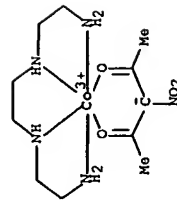
CRN 14797-73-0
CMF Cl O4
CCI CCS



RN 56371-52-9 HCAPLUS
CN Cobalt(2+), [N,N'-bis(2-aminoethyl)-1,2-ethanediamine-N,N',N'',N'''] (3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-22)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 56371-51-8
CMF Cl1 H24 Co N5 O4
CCI CCS



CM 2

CRN 14797-73-0

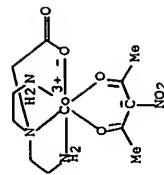
CMF Cl O4



RN 56371-54-1 HCAPLUS
CN Cobalt(1+), [N,N-bis(2-aminoethyl)glycinato-N,N',N'',O] (3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-43)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 56371-53-0
CMF Cl1 H20 Co N4 O6
CCI CCS



CM 2

CRN 14797-73-0
CMF Cl O4

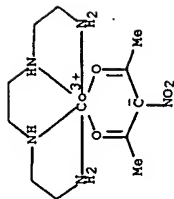


RN 56390-71-7 HCAPLUS
CN Cobalt(2+), [N,N'-bis(2-aminoethyl)-1,2-ethanediamine-N,N',N'',N'''] (3-nitro-2,4-pentanedionato-O2,O4)-, (OC-6-32)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 56390-70-6

CMF C11 H24 Co N5 O4
CCI CCS



CM 2

CRN 14797-73-0
CMF C1 O4



CC 78-7 (Inorganic Chemicals and Reactions)
IT 56371-42-7P 56371-44-9P 56371-46-1P 56371-48-3P
56371-50-7P 56371-52-9P 56371-54-1P
56390-71-7P 56553-40-3P
(preparation of)

L23 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:452587 HCAPLUS Full-text
DOCUMENT NUMBER: 83:52587
TITLE: Substituent effects in electron transfer reactions. Preparation and chromium(II) reduction of 3-formylpentane-2,4-

dionatobis(ethylenediamine)cobalt(III).
Preparation of the linkage isomer
2-acetylbutane-1,3-dionatobis(ethylenediamine)coba
lt(III)
Balahura, Robert J.; Lewis, N. A.
Dep. Chem., Univ. Guelph, Guelph, ON, Can.
Canadian Journal of Chemistry (1975), 53(8),
1154-64
CODEN: CJCHAG; ISSN: 0008-4042

AUTHOR(S):
CORPORATE SOURCE:
SOURCE:

DOCUMENT TYPE:
LANGUAGE:
ED Entered STN: 12 May 1984
AB The preparation of the linkage isomers, 3-formylpentane-2,4-

dionatobis(ethylenediamine)cobalt(III) (I), and 2-acetylbutane-1,3-

dionatobis(ethylenediamine)cobalt(III) (II), are described. The kinetics of the reaction of Cr(OH2)62+ with I and the parent complex, 2,4-pentenedionatobis(ethylenediamine)cobalt(III) (III), were studied spectrophotometrically in acidic solution. For I, the reduction is described by the rate law, $-d[\text{Cr(III)complex}]/dt = k[\text{Cr}^{2+}]$, and $k = 0.0863 \text{ M}^{-1} \text{ sec}^{-1}$ at 25° , $\mu = 1.0 \text{ M}$ (LiClO4). The activation parameters for this reaction were found to be $\Delta H^\ddagger = 9.9 \pm 0.5 \text{ kcal mole}^{-1}$ and $\Delta S^\ddagger = -30 \pm 3 \text{ e.u.}$ The reaction proceeded by an inner-sphere mechanism and the product of this reaction was isolated and characterized as 2-acetylbutane-1,3-dionatetraquochromium(III). The linkage isomer of this complex was also prepared. The parent complex (III) was not reduced by Cr(OH2)62+ at an observable rate and an upper limit for the rate constant of this reaction was assigned a value of $10^{-4} \text{ M}^{-1} \text{ sec}^{-1}$ at 25° . The ability of the formyl group to enhance the rate of electron transfer is discussed, and the Cr(II) reduction studies of related chelated systems are compared with the results obtained in this investigation.

IT 56081-63-1P

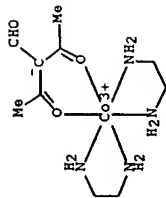
(preparation and reduction by divalent chromium)

RN 56081-63-1 HCAPLUS

CN Cobalt(2+), (2-acetyl-3-oxobutanalato-O2,O3)bis(1,2-ethanediamine-N,N')-, (OC-6-22)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 56081-62-0
CMF C10 H23 Co N4 O3
CCI CCS

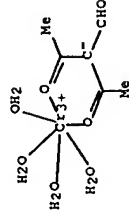


CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



IT 56081-67-5P
 (preparation of)
 RN 56081-67-5 HCAPLUS
 CN Chromium(2+), (2-acetyl-3-oxobutanalato-02,03)tetraqua-, (OC-6-22)-
 (9CI) (CA INDEX NAME)



CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 67
 IT 56081-63-1P
 (preparation and reduction by divalent chromium)
 IT 53230-80-1P 56081-65-3P 56081-66-4P 56081-67-5P
 (preparation of)

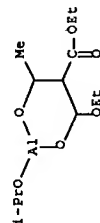
L23 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1974:100114 HCAPLUS Full-text
 DOCUMENT NUMBER: 80:100114
 TITLE: Antiperspirant composition
 INVENTOR(S): Bouillon, Claude; Dufaura, Pierre; Rosenbaum, Georges
 PATENT ASSIGNEE(S): Oreal S. A.
 SOURCE: Fr. Demande, 37 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2163432	A1	19730727	FR 1972-35784	19721010
FR 2163432	B1	19750912		
US 3819671	A	19740625	US 1972-294927	19721004
NL 7213649	A	19730619	NL 1972-13649	19721009
JP 48067444	A	19730914	JP 1972-100739	19721009
JP 52047021	B	19771129		
CH 555677	A	19741115	CH 1972-14729	19721009
IT 988359	B	19750410	IT 1972-70178	19721009
BR 7207036	D0	19730830	BR 1972-7036	19721010
DE 2249580	A1	19731213	DE 1972-2249580	19721010
AU 7247579	A	19740426	AU 1972-47579	19721010
CA 970782	A1	19750708	CA 1972-153611	19721010
AT 7208678	A	19760115	AT 1972-8678	19721010
AT 332559	B	19761011		
US 3929986	A	19751230	US 1974-454732	19740325

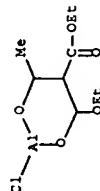
LU 1971-64463 A 19711216
 US 1972-294927 A3 19721004

ED Entered STN: 12 May 1984
 AB Heterocyclic Al compds. (I and II) [e.g. I (Z, R, and R' given): Cl, EtO2C, EtO2C; MeSO2O, EtO2C, EtO2C; p-MeC6H4SO2O, EtO2C, EtO2C; and II (Z, R2-R4 given): Cl, Ph, EtO4C, H (III), Cl, Me, Ac, H] are prepared and used at 0.5-20 weight % as antiperspirants. These materials are mostly alc.-soluble, and 1-5 weight % may be used in aerosols, and at higher levels in oils, creams, sticks, powders, and emulsions. I, e.g., are prepared by reacting a β-glycol with an Al alkoxide and reacting the resulting Al ether with HCl or a sulfonic acid. Thus III 3-5, hexachlorophene 0.1, perfume 0.2, starch ester 0.3, silicone oil 1.2, CF3Cl 47.35, and CCl2F2 47.35 parts by weight are pressurized together to give an impalpable dry spray powder.

IT 51689-11-3P 51689-12-4P
 (preparation of)
 RN 51689-11-3 HCAPLUS
 CN Aluminum, [ethyl 2-(ethoxyhydroxymethyl)-3-hydroxybutanoato(2-)](2-propanolato)-(9CI) (CA INDEX NAME)



RN 51689-12-4 HCAPLUS
 CN Aluminum, chloro[ethyl 2-(ethoxyhydroxymethyl)-3-hydroxybutanoato(2-)]-(9CI) (CA INDEX NAME)



IC A61K; C07D
 CC 62-4 (Essential Oils and Cosmetics)
 IT Section cross-reference(s): 23, 25
 51688-88-1P 51688-89-2P 51688-91-6P 51688-95-0P 51688-96-1P
 51688-97-2P 51688-99-4P 51689-00-0P 51689-01-1P 51689-03-3P
 51689-04-4P 51689-07-7P 51689-09-9P 51689-11-3P
 51689-12-4P 51689-13-5P 51799-61-2P
 (preparation of)

-> d his 122

(FILE 'EMBASE, BIOSIS, MEDLINE, DRUG, HCAPLUS, JICST-EPIUS, JAPIO,
WPX, SCISEARCH, LIFESCI' ENTERED AT 09:37:23 ON 24 JAN 2007)
L22 7 S L21 AND METALLIC?

-> d que 122

L20 170 SEA DOPPELT, P7/AU
L21 15 SEA L20 AND GAS(A) PHASE?
L22 7 SEA L21 AND METALLIC?

-> dup rem 11 122

FILE 'HAPLUS' ENTERED AT 09:50:41 ON 24 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE 'WPX' ENTERED AT 09:50:41 ON 24 JAN 2007
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FILE 'SCISEARCH' ENTERED AT 09:50:41 ON 24 JAN 2007
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PROCESSING COMPLETED FOR L1
PROCESSING COMPLETED FOR L22

L24 4 DUP REM L1 L22 (4 DUPLICATES REMOVED)
ANSWERS "1-4" FROM FILE HCAPLUS

-> d 124 1-4 1bib ab ind

L24 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 1
ACCESSION NUMBER:
DOCUMENT NUMBER:
TITLE:

INVENTOR(S):
PATENT ASSIGNEE(S):
SOURCE:

DOCUMENT TYPE:
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2845088	A1	20040402	FR 2002-12059	20020930
FR 2845088	B1	20041203		
CA 2500386	A1	20040408	CA 2003-2500386	20030925
WO 2004029061	A1	20040408	WO 2003-FR2820	20030925
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, NZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				

59

RW: GH, GK, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG

AU 2003276374 AU 2003-276374 20030925
EP 1551851 AI 20050713 EP 2003-798226 20030925
EP 1551851 B1 20060802

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
JP 2006501280 T 20060112 JP 2004-539140 20030925
AT 334990 T 20060815 AT 2003-798226 20030925
US 2006121709 AI 20060608 US 2005-529569 20050929

PRIORITY APPLN. INFO.:
FR 2002-12059 A 20020930
WO 2003-FR2820 W 20030925

OTHER SOURCE(S):

MARPAT 140:295114

AB The invention has as an aim of new complexes of copper(I) or silver(I) and their use for chemical plating in gas phase of copper or silver metals practically free from impurities, complexes of structure I, in which M is Cu or Ag; R' and R'', identical or different, represent a group chosen from among a Cl-8 alkyl, a -OR''' group, in which R''' is Cl-8 alkyl; R is a group chosen from among OR'', in which R'' is Cl-8 alkyl, a nitro group NO2, an aldehyde function -CHO, an ester function -COOR'', in which R'' is Cl-8 alkyl, and L is a ligand of stabilization.

IC ICM C07F001-08

ICS C07F001-10: C23C016-18

CC 75-1 (Crystallography and Liquid Crystals)

ST Section cross-reference(s): 78

IT fluorine free metal complex gas phase chem vapor deposition; copper

IT CVD fluorine free complex; silver CVD fluorine free complex

IT Vapor deposition process

IT (chemical: fluorine-free metal complexes for gas-phase chemical

deposition of metals)

IT Coordination compounds

IT (fluorine-free metal complexes for gas-phase chemical deposition of

metals)

IT 25583-20-4, Titanium nitride

IT (film, on silicon substrate for CVD; fluorine-free metal complexes

for gas-phase chemical deposition of metals)

IT 7440-22-4P, Silver, processes 7440-30-8P, Copper, processes

IT (fluorine-free metal complexes for gas-phase chemical deposition of

metals)

IT 123-54-6, Acetylacetone, reactions 29965-97-7, Cyclooctadiene

IT (fluorine-free metal complexes for gas-phase chemical deposition of

metals)

IT 14630-40-1P 14689-25-9P 26213-42-3P 675200-66-5P 675200-67-6P

675200-68-7P 675200-69-8P 675200-70-1P 675200-71-2P

675200-72-3P

IT (fluorine-free metal complexes for gas-phase chemical deposition of

metals)

IT 7440-21-3, Silicon, processes

IT (substrate for CVD; fluorine-free metal complexes for gas-phase

chemical deposition of metals)

REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

60

L24 ANSWER 2 OF 4 HCAPJUS COPYRIGHT 2007 ACS on STN DUPLICATE 2
 1998:621221 HCAPJUS Full-text
 DOCUMENT NUMBER: 129:245297

TITLE: Preparation of novel copper(I) β -diketonato alkyne complexes and use for chemical vapor deposition of metallic copper

INVENTOR(S): Doppelt, Pascal
 PATENT ASSIGNEE(S): Centre National de la Recherche Scientifique (CNRS), Fr.

SOURCE: PCT Int. Appl., 20 pp.

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9840387	A1	19980917	WO 1998-FR518	19980313
	W:	AU, CA, JP, KR, SG, US		
	RW:	AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE		
FR 2760743	A1	19980918	FR 1997-3029	19970313
FR 2760743	B1	19990723		
CA 2283160	A1	19980917	CA 1998-2283160	19980313
AU 9862333	A1	19980929	AU 1998-69233	19980313
AU 743343	B2	20020124		
EP 966474	A1	19991229	EP 1998-914918	19980313
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI		
JP 2001514644	T	20010911	JP 1998-539311	19980313
TW 514671	B	20021221	TW 1998-87103811	19980316
US 6130345	A	20001010	US 1999-380948	19991215
PRIORITY APPLIN. INFO.:			FR 1997-3029	A 19970313
			WO 1998-FR518	W 19980313

OTHER SOURCE(S): MARPAT 129:245297
 AB The invention concerns $[Cu(R^1C(O)C(R^2)R^3)]_n$, prepared by known methods, useful for the **gas phase** chemical deposition of Cu. In the complexes, L is an alkyne in which the triple bond is partially deactivated by one or two electron-withdrawing groups, e.g. alkenynes; this deactivation suppresses the tendency for such complexes to dimerize. Also, R' and R'' are lower alkyls contingently substituted by 21 halogens; R = H, halogen, lower alkyl (as described earlier).

IC ICH C07F001-08

ICS C23C016-18

CC 29-9 (Organometallic and Organometalloidal Compounds)

ST Section cross-reference(s): 75
 copper diketonato alkyne prepn CVD precursor; chem vapor deposition precursor

IT Ketones, preparation
 (1,3-diketones, copper alkyne complexes; preparation of copper(I) β -diketonato alkyne complexes and use for CVD of copper metal)

IT Alkenynes

Alkynes

(copper β -diketonato complexes; preparation of copper(I) β -diketonato alkyne complexes and use for CVD of copper metal)

IT Vapor deposition process
 (metalorg.; preparation of copper(I) β -diketonato alkyne complexes and use for CVD of copper metal)

IT 13721-34-5, 1-Hexen-3-yne 23056-94-2

(for preparation of copper β -diketonato alkyne complex useful for CVD of copper metal)

IT 192817-15-5P 213133-85-8P

(preparation of copper(I) β -diketonato alkyne complexes and use for CVD of copper metal)

IT 7440-50-8P, Copper, preparation

(preparation of copper(I) β -diketonato alkyne complexes useful for CVD of copper metal)

REFERENCE COUNT: 1
 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 4 HCAPJUS COPYRIGHT 2007 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1997:64808 HCAPJUS Full-text

DOCUMENT NUMBER: 126:231906

TITLE: Selective metalization of silica surfaces by copper CVD using a chemical affinity pattern created by **gas phase** silylation and UV exposure

AUTHOR(S): Doppelt, Pascal, Stelzle, Martin

CORPORATE SOURCE: Laboratoire de Chimie et d'Electrochimie des Matériaux Moleculaires, ESPCI, 10 rue Vauquelin, F-75231, Paris, Fr.

SOURCE: Microelectronic Engineering (1997), 33(1-4), 15-23

CODEN: MIENEF; ISSN: 0167-9317

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Selective metalization of surfaces was achieved using organo-metallic copper precursors in a completely dry two step process. Silica surfaces were derivatized with monofunctional silanes by **gas phase** silylation. Good coverage with covalently bound monolayers was obtained. UV-exposure of the halogen or sulfur terminated mols. employing a mask resulted in a controlled pattern of the surface affinity towards the copper complex. The water and oxygen content of the ambient atmosphere exerts a pronounced influence on the result of the CVD process, which was particularly observed in case of a thiol terminated surface. The applicability of this method for both pos. and neg. lithog. was demonstrated. The nature of the interaction between the chemical functionalized, patterned surface and the copper precursor is discussed.

CC 76-3 (Electric Phenomena)

ST Metalization silica copper CVD silylation UV

IT Electric conductors

Silylation

UV radiation

Vapor deposition process

(selective metalization of silica surfaces by copper CVD using a chemical affinity pattern created by **gas phase** silylation and UV exposure)

IT 7440-50-8, Copper, uses 7631-86-9, Silica, uses

(selective metalization of silica surfaces by copper CVD using a chemical affinity pattern created by **gas phase** silylation and UV exposure)

L24 ANSWER 4 OF 4 HCAPJUS COPYRIGHT 2007 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1993:173582 HCAPJUS Full-text

DOCUMENT NUMBER:

118:173582

TITLE: Mineral precursor for chemical vapor deposition of

rhodium metallic films

AUTHOR(S): Doppelt, Pascal; Weigel, Valerie;

Guinot, Philippe

CORPORATE SOURCE: Lab. Chim. Electrochim. Mater. Mol., ESPCI, Paris,

75231, Fr.

SOURCE: Materials Science & Engineering, B: Solid-State

Materials for Advanced Technology (1993),

B17(1-3), 143-6

CODEN: MSBTEK; ISSN: 0921-5107

DOCUMENT TYPE:

JOURNAL

LANGUAGE: English

AB Di- μ -chloro-tetrakis(trifluorophosphine)dirhodium(I) was synthesized by using the method of Bennett and Patmore (1971) and was purified twice by sublimation. Decomposition reaction of the complex studied by Fourier transform IR spectroscopy in the vapor phase showed that no volatile species except the complex and PF₃ were present in the gas phase. The mineral precursor was used to obtain Rh films by chemical-vapor deposition under mild conditions of <200° and pressure 3-10 Torr on Pyrex glass slides or NaCl substrates. The resulting smooth Rh films with a mirror-like surface were characterized by x-ray diffraction to be face centered cubic fcc with a = 3.8062 Å. According to TEM 800 + 50 +50 Å single crystals are present. Neither p nor F atoms were detected, but a significant amount of Cl atoms was present in the films identified as RhCl₃.

CC 56-6 (Nonferrous Metals and Alloys)

ST rhodium CVD mineral complex precursor

IT Vapor deposition processes

IT (chemical, of rhodium films, mineral complex precursor for)

IT 7440-16-6, Rhodium, uses

IT CVD of, mineral complex precursor for)

IT 14876-98-3

(precursor of, for CVD of rhodium films)

=> d his nofile

(FILE 'HOME' ENTERED AT 08:12:19 ON 24 JAN 2007)

FILE 'HCAPIUS' ENTERED AT 08:13:24 ON 24 JAN 2007

L1 1 SEA ABB-ON PUJ-ON US20060121709/PN

FILE 'REGISTRY' ENTERED AT 08:13:44 ON 24 JAN 2007

L2 16 SEA ABB-ON PUJ-ON (123-54-6/BI OR 14630-40-1/BI OR 14689-23-9/BI OR 23583-20-4/BI OR 26213-42-3/BI OR 29965-97-7/BI OR 675200-66-5/BI OR 675200-67-6/BI OR 675200-68-7/BI OR 675200-69-8/BI OR 675200-70-1/BI OR 675200-71-2/BI OR 675200-72-3/BI OR 7440-21-3/BI OR 7440-22-4/BI OR 7440-50-8/BI)

L3 STR

L4 STR L3

L5 12 SEA SSS SAM L4

L6 237 SEA SSS FUL L4

L7 6 SEA ABB-ON PUJ-ON L2 AND L6

SAV L6 LA0569/A

FILE 'HCAPIUS' ENTERED AT 09:23:59 ON 24 JAN 2007

L8 27 SEA ABB-ON PUJ-ON L7

FILE 'REGISTRY' ENTERED AT 09:24:47 ON 24 JAN 2007

L9 STR L4

L10 12 SEA SUB-L6 SSS SAM L9

L11 153 SEA SUB-L6 SSS FUL L9

L12 84 SEA ABB-ON PUJ-ON L6 NOT L11

L13 4 SEA ABB-ON PUJ-ON L7 NOT L11

FILE 'HCAPIUS' ENTERED AT 09:32:29 ON 24 JAN 2007

L14 1 SEA ABB-ON PUJ-ON L13

L15 29 SEA ABB-ON PUJ-ON L12

FILE 'REGISTRY' ENTERED AT 09:33:50 ON 24 JAN 2007

L16 0 SEA ABB-ON PUJ-ON L12 AND MEDLINE/LC

L17 0 SEA ABB-ON PUJ-ON L12 AND BIOSIS/LC

L18 0 SEA ABB-ON PUJ-ON L12 AND EMBASE/LC

L19 0 SEA ABB-ON PUJ-ON L12 AND DRUGU/LC

FILE 'EMBASE, BIOSIS, MEDLINE, DRUGU, HCAPIUS, JICST-EPIUS, JAPIO,

WPIX, SCISEARCH, LIFESCI' ENTERED AT 09:37:23 ON 24 JAN 2007

L20 170 SEA ABB-ON PUJ-ON TOPFELT, P2/AU

L21 15 SEA ABB-ON PUJ-ON L20 AND GAS(A) PHASE?

L22 7 SEA ABB-ON PUJ-ON L21 AND METALLIC?

FILE 'HCAPIUS' ENTERED AT 09:47:47 ON 24 JAN 2007

L23 28 SEA ABB-ON PUJ-ON L15 NOT L1

FILE 'HCAPIUS, WPIX, SCISEARCH' ENTERED AT 09:50:41 ON 24 JAN 2007

L24 4 DUP REM L1 L22 (4 DUPLICATES REMOVED)

ANSWERS '1-4' FROM FILE HCAPIUS

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